CHIPS

Department of the Navy

Achieving operational effectiveness and efficiencies through business IT reform, improved financial processes and renewable energy technologies

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Department of the Navy Chief Information Officer Mr. Terry A. Halvorsen

Department of the Navy Deputy Chief Information Officer (Navy) Vice Adm. Kendall L. Card

Department of the Navy **Deputy Chief Information Officer (Marine Corps)** Brig. Gen. Kevin J. Nally

Space & Naval Warfare Systems Command Commander Rear Adm. Patrick H. Brady

Space & Naval Warfare Systems Center Atlantic Commanding Officer Capt. Mark V. Glover

Space & Naval Warfare Systems Center Pacific Commanding Officer Capt. Joseph J. Beel

Senior Editor/Layout and Design **Sharon Anderson**

Webmaster

Department of the Navy Chief Information Officer

Columnists

Sharon Anderson, Dan DelGrosso, Terry Halvorsen, Mike Hernon, Thomas Kidd, Steve Muck

Contributors

Lynda Pierce, DON Enterprise IT Communications Michele Buisch, DON Enterprise IT Communications

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Requests for assistance should be directed to Editor, CHIPS, SPAWARSYSCEN Atlantic, 1837 Morris St., Suite 3311, Norfolk, VA 23511-3432, or call (757) 443-1775; DSN 646. Email: chips@navy.mil; Web: www.doncio.navy. mil/chips.

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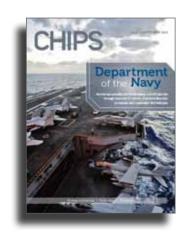
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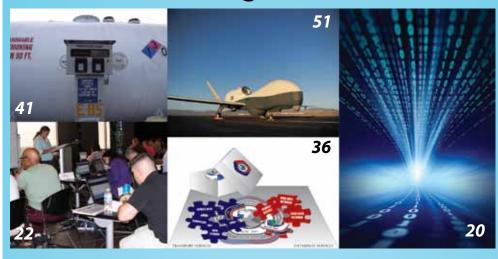
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Cover

PACIFIC OCEAN (June 26, 2012) An F/A-18E Super Hornet from Strike Fighter Squadron (VFA) 147 and an E/A-6B Prowler from Electronic Attack Squadron (VAQ) 142 are lifted to the flight deck of the aircraft carrier USS Nimitz (CVN 68) on the ship's aircraft elevator. Nimitz is underway conducting carrier qualifications in preparation for Rim of the Pacific (RIMPAC) 2012, the world's largest international maritime exercise. U.S. Navy photo by Mass Communication Specialist 3rd Class Ian A. Cotter. The Department of the Navy is working on all fronts to ensure combat readiness through improved financial business processes, business IT reform and renewable energy technologies.

Editor's Notebook

I am particularly excited about this issue because the theme and content captures several critcal efforts of the Department of the Navy's focus right now: achieving operational effectiveness and efficiencies through business IT reform and improving financial processes and renewable energy technologies. Top leadership, including: Deputy Under Secretary of the Navy and Deputy Chief Management Officer, Office of the Secretary of the Navy Eric Fanning; Principal Deputy Assistant Secretary Navy for Financial Management and Comptroller Charles E. Cook III; and Deputy Assistant Secretary of the Navy for Energy Thomas W. Hicks are the business warriors offering their unique perspectives in each of their areas of responsibility in meeting the department's objectives in these three strategic imperatives.

Mr. Hicks also talks about the Navy's *Great Green Fleet*. The Navy is currently testing the operational effectiveness of alternative fuels with its Green Fleet carrier strike group using 50/50 blends for two days of the Rim of the Pacific exercise in and around the Hawaiian Islands.

In May, the CHIPS staff partnered with one of CHIPS' sponsors, the Department of Defense Enterprise Software Initiative (ESI) team at the DON IT East Coast Conference held in Virginia Beach, Virginia. Did you know that the DoD ESI offers hardware, training and much more than just software at better than GSA pricing? Use of Department of the Navy Enterprise Licensing Agreements (ELAs) by all DON organizations and programs is now mandatory to achieve maximum cost savings. For more information, go to www.doncio.navy.mil/PolicyView.aspx?ID=3777.

DON Chief Information Officer Terry Halvorsen held a town hall at the DON IT Conference to discuss the department's blueprint for business IT transformation. You will want to read his strategy in the "Department of the Navy Business IT Transformation" article in this issue.

Contributing to the discussion is the Naval Enterprise Networks program office with an article about the acquisition strategy for the Next Generation Enterprise Network (NGEN) which will replace the Navy Marine Corps Intranet in April 2014. Also weighing in is the Sea Warrior program office responsible for a complex portfolio of IT systems to recruit, train, pay, promote, move, retire and support Navy personnel and deliver Distance Support to the fleet. Both program offices are part of the Program Executive Office for Enterprise Information Systems (PEO-EIS) which develops, acquires and deploys enterprise-wide IT systems for the warfighter and business enterprise.

Welcome new e-subscribers!

Sharon Anderson



The DON's ESI software product manager Suzi Ellison and DoD ESI cochair and director of enterprise commercial IT strategy in the office of the DON CIO Floyd Groce answer questions about enterprise licensing at their presentation at the DON IT Conference. The DoD ESI has a robust resource library and training available at www.esi.mil to assist buyers in saving time and money on their purchases.



PACIFIC OCEAN (July 7, 2012) A wave strikes the side of the Military Sealift Command fleet replenishment oiler USNS Henry J. Kaiser (T-AO 187) as it conducts a replenishment at sea with the aircraft carrier USS Nimitz (CVN 68). Nimitz is underway participating in Rim of the Pacific (RIMPAC) 2012. Twenty-two nations, more than 40 ships and submarines, more than 200 aircraft and 25,000 personnel are participating in the RIMPAC exercise from Jun. 29 to Aug. 3, in and around the Hawaiian Islands. RIMPAC 2012 is the 23rd exercise in the series that began in 1971. U.S. Navy photo by Mass Communication Specialist 2nd Class Robert Winn.

A MESSAGE FROM THE **DON CIO**

Maximizing the Value of **Data as a Critical DON Business Asset**

We all save an overabundance of mementos from the past — whether it is a favorite blanket from grandma, a box full of baseball cards (unfortunately, not a Tug McGraw or Ted Williams rookie card in the mix), or 20-year-old report cards. While it may be comforting to know that we can always find a particular item; in reality, is that box of baseball cards valuable enough to keep around? We, as a department, have long suffered from the same need to be comforted by storing an overabundance of data. However, the value of that data is not understood, and the data itself is not treated well. Like our crammed attics, the department's data is not organized: there is duplicate data in different places and some data are really just mementos from the past.

We must not lose sight of the fact that our data is a vital asset that enables the DON to accurately and quickly respond to any situation. In a recent article published on the DON CIO website, "Message From the DON CIO: Keeping PII and PHI Secure" (www.doncio.navy.mil/ContentView.aspx?ID=3963), I wrote about the vital need to handle personally identifiable information (PII) and protected health information (PHI) appropriately to protect the rights of department personnel. However, non-PII and -PHI data are just as important, since the inappropriate or inefficient handling of such data can seriously limit the DON's effectiveness.

Our data strategy must be all encompassing. Our people, including data owners, senior leaders, data analysts and data architects, and processes and technologies must be aligned to enable the DON to leverage data as an enterprise asset and to mitigate risks. As an enterprise, we must ensure data is authoritative, accurate, accessible and auditable. To effectively manage data as a strategic enabler, the many components of the DON must align processes and standards. Without alignment surrounding what I call the "four A's" of data-driven decision capabilities, the data will prove a roadblock that will hinder DON operations. The four A's are:

Authoritative: Data must reside within the organizations that have a mission requirement to use it. Each of these organizations must be responsible for ensuring that the data is up-to-date and fits within the common data definitions. When a requirement for the data exists, it should be pulled from the authoritative data source. For instance, N1, the Deputy Chief of Naval Operations (Manpower, Personnel, Training



and Education) would be the data owner for all personnel information and the Navy Bureau of Medicine and Surgery would own all medical data.

Accurate: As mentioned, DON data must be accurate. Without accurate data we have nothing but junk to work from. Accurate data is a strategic advantage to our business and warfighting decisionmaking. The less time required to verify accuracy, the faster a decision can be made, and the more effective and efficient the department will be.

Accessible: For data to be useful it must be immediately relevant, safe and accessible. This occurs as a result of meaningful definitions, readiness of source data and the ability to use data despite impediments such as natural or man-made disasters and hardware failures.

Auditable: All of our financial data must be "audit ready" — meaning there must be full transparency and accountability for all the money coming into and leaving the department. This will require sustained effort and commitment at the department and component levels to address weaknesses and produce financial management information that is timely, reliable and useful for all department managers. See the article "Audit Readiness: The Challenge" for more on making the DON audit ready.

Effective data governance helps the DON to achieve cost savings by eliminating excess and inadvertent actions; and enabling greater credibility of information used in decision making and more timely information sharing.

If DON enterprise data can be aggregated to enable quick retrieval of accurate data from authoritative databases, then as a department, we will be able to make fact-driven decisions that will strategically focus our efforts to meet the future DON warfighting and business requirements.

Maximizing the full value of our data requires a strategic approach to choosing the right processes, technologies and resources. Department personnel must use data that is authoritative, accurate, accessible and auditable to make data-driven decisions that will guide the future. Once this is achieved, we will be able to truly trust the data and have confidence that it will serve as the glue that binds our business and warfighting strategies. CHPS

Terry Halvorsen

Q&A WITH ERIC FANNING – DEPUTY UNDER SECRETARY OF THE NAVY AND DEPUTY CHIEF MANAGEMENT OFFICER, OFFICE OF THE UNDER SECRETARY OF THE NAVY

Previous to his position as Deputy Under Secretary of the Navy and Deputy Chief Management Officer, Mr. Fanning was deputy director of the Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism, which issued its report in December 2008. From 2001 to 2006, he was Senior Vice President for Strategic Development at Business Executives for National Security (BENS), a Washington, D.C.based think tank. At BENS, he was in charge of international programs and all regional office operations in six cities across the country. During his time at BENS, he traveled to more than 30 countries, mostly in Africa, the Middle East and Europe, including multiple trips to Iraq and Afghanistan.

CHIPS: In a CHIPS interview with Under Secretary of the Navy Robert O. Work last September, the Under talked about the imperative for the department to achieve a 25 percent reduction in costs over five years in business information technology reform. Mr. Work said that you demand a business case analysis for essentially everything that is not a tactical or operational system in the budget process. Can you explain how a business case analysis is developed and then reviewed?

Fanning: In the simplest terms, a business case asks two questions: why and so what. Why are you doing this? What are you hoping to achieve? And so what? Why does that matter? Will



ERIC FANNING

you save money? Will you increase performance in some critical area that someone cares about? There is a tendency in the Pentagon to throw technology at a problem — especially the bright shiny new technology. My job is to ensure that before making an investment decision that we clearly understand the business problem and can clearly articulate how a particular investment will help achieve the business outcome that is needed.

We look at technology as an enabler, not a magic wand or an end unto itself. Instead of focusing on technology we focus first on what outcome the department is trying to accomplish and work backwards. First we look at policies, procedures and processes and see if they are inhibiting our ability to execute. It is not until then, after this analysis

has been completed, do we determine if technology can help to enable that outcome.

CHIPS: Under Secretary Work also said that this austere budget environment is a time when good people and good ideas matter the most. Can you talk about some of the good ideas that have emerged since the Department of the Navy began its drive to cut business IT costs?

Fanning: Good ideas do matter. For example, perhaps the best idea we've had is to not to treat technology as a panacea for our business problems. Instead, we look at the business problems, deconstruct them to component parts, and enable solutions with technology only when necessary.

For example, in 2009 the Navy was handed the remnants of the Defense Integrated Military Human Resources System (DIMHRS) and told to try and implement it in the Navy. As we started down that road we requested an independent assessment on that effort and concluded that the Navy should stop inserting technology until we had defined what the business problems were.

We then spent a year deconstructing our business processes, baselining our cost of doing business and prioritizing the highest impact business problems. Because of this approach, today the Navy is able to target specific problems holistic to the personnel and pay business —



taking into account policy, processes and execution — before throwing technology into the equation. This approach has resulted in the N1 (Deputy Chief of Naval Operations for Manpower, Personnel, Training and Education) being able to give back roughly \$300 million to the Navy while modernizing its personnel and pay systems — in the right way.

CHIPS: Since there is no single budget line that says: DON business IT, Mr. Work said it was difficult to identify business *IT spending within the department. Now* more than a vear into the efficiencies process, does the DON have a better handle on its business IT spending? Are you optimistic about the DON meeting its 25 percent reduction objective?

Fanning: Trying to single out IT spending is difficult exactly for the reason you cite: there is no separate line item that says IT. But it's actually more complicated than that. We make a distinction between what we call commodity infrastructure IT (servers, desktops, data centers) and business IT systems enabling specific and specialized business processes.

We think it's entirely appropriate to try and centrally manage commoditized resources; however, when a particular system is closely correlated to attaining business outcome you have to be much more careful. In an effort to lower IT spending an organization may inadvertently drive up total operating

cost — maybe because they replaced the IT with labor or maybe because they incurred disproportionately high integration and implementation costs, making return on investment impossible to achieve. IT is only part of the total operating cost of a business and you have to look at the whole equation.

Having said that, we are confident that we will achieve the 25 percent savings in IT. I work closely with DON Chief Information Officer (CIO) Terry Halvorsen, who has the lead in this particular effort. He has already made enormous strides, giving added confidence to leadership that we will successfully achieve this goal.

CHIPS: Is there anything that you would like to add?

Fanning: In an increasingly austere fiscal environment it is critical that the Under Secretary be able to see and manage resources at the department level. Our investment in Enterprise Resource Planning systems has lacked focus in delivering business benefits. If leadership had better visibility into the business operations we could more effectively allocate resources, improve our cost efficiency and support auditability.

We have begun an Enterprise Resource Management effort to do just that. Rather than being system focused, this initiative is centered on establishing requirements and standards for data

and processes — standards which are carefully and appropriately set for each specific echelon and function of the organization. The department is committed, with leadership driving this initiative from the top: defining goals, removing barriers and ensuring the execution is sufficiently resourced.

In our work, the Deputy Under Secretary of the Navy/Deputy Chief Management Officer views DON CIO as an integral partner in the successful management of the Navy. In my role as Deputy Chief Management Officer, I view the Navy as a business whose mission, among other things, is to provide personnel and material to the combatant commanders as efficiently and effectively as possible. That requires that my team, in concert with the functional business owners, to constantly look for ways to improve operations, take cost out of the system and think of new ways of doing things.

To be successful we need to completely understand how the business operates and also how much it costs. When we find opportunities to improve the business, we team with DON CIO to see how technology can best help enable the solution. CHPS

FOR MORE INFORMATION ABOUT DEPARTMENT OF THE NAVY IT COST-SAVINGS INITIATIVES AND POLICY, VISIT THE DON CIO WEBSITE: WWW.DONCIO.NAVY.MIL.



Interview with Charles E. Cook III – Principal Deputy Assistant Secretary Navy (Financial Management and Comptroller)



As the Principal Deputy Assistant Secretary of the Navy (Financial Management and Comptroller) Mr. Charles E. Cook, Ill assists in the oversight of budget formulation and execution, financial reporting and cost estimating for the Department of the Navy.

Mr. Cook entered the Senior Executive Service in June 1995. He has spent more than 30 years supporting the Department of Defense's financial management community in various commands since 1978.

Since December 2010, the Department of the Navy is working toward greater efficiencies and costsaving initiatives to meet the Under Secretary of the Navy's directive to achieve a 25 percent reduction in business IT spending. To meet this requirement, the DON Chief Information Officer has issued multiple policies and there is increased rigor in approving IT purchases, such as the mandated review of any IT expenditure greater than \$1 million in life cycle costs by the Navy and Marine Corps through the Information Technology Expenditure Approval Authority (ITEAA).

At the same time, the department is working to meet DoD mandates to achieve audit readiness of the Statement of Budgetary Resources by the end of calendar year 2014 and to meet the legal requirements to achieve full audit readiness for all DoD financial statements by 2017.

The goals for audit readiness, improving IT business processes and IT cost reductions go hand-in-hand. Leadership is working across the department in strategic partnerships to



CHARLES E. COOK III

achieve these objectives. CHIPS asked Mr. Cook to discuss these initiatives in late June.

CHIPS: The department has instituted multiple policies to reduce IT spending and provide greater transparency into the true costs of business IT. Are the policies delivering the results that the department is expecting?

Cook: The indications are certainly there. About a year ago we put in the ITEAA and are still working out the greater specifics as we fit them in with the guidance we recently received from OSD. Even so, over the past year greater scrutiny has taken place inside the DON and Navy and Marine Corps programs.

I do want to make a key distinction or slight modification to the question. Instead of greater transparency, I think the main point is greater scrutiny. At this time, with fiscal challenges we face, scrutiny is probably the most critical element and the key to determine how we will spend our limited resources in the future.

CHIPS: In a CHIPS interview with Rear Adm. Joseph Mulloy, Deputy Assistant Secretary of the Navy for Budget (FMB) in November 2011, he said that the department is working to meet the Office of Management and Budget requirement to file audit-ready reports. Can you talk about the department's progress in achieving this goal?

Cook: Yes, we are making progress. The key, we believe, to auditability is to get our business processes right. If we do that then auditability will follow. The key partner to auditability is sustaining auditability once we get there. The only way we can do that is to have tighter controls and improved business processes. We are utilizing a top-to-bottom involvement approach to achieve this goal.

History tells us if change is going to occur it has to occur at the deckplate level, the boots on the ground level. Therefore, to achieve our audit-ready goals, we have a very active dialogue going with our commands and their subordinate commands on the best ways to conduct business on the ground level within the Department of the Navy. If the field activities have a voice in this process they are going to take ownership of it, and it's going to effect long-term changes.

These discussions revolve around eight key segments we are focusing on and [we] have a plan to progress through those between now and 2014, in order to get our core business processes right.

CHIPS: When you talk about processes, are you talking about the actual process or the way the department's business systems process transactions?

Cook: Yes, to both. Of the eight segments we are looking at, hire to



Procure to Pay

- **Execute Requisition**
- Source Goods & Services
- Manage Contract
- **Execute Purchase**
- Perform Receipt, Acceptance & Return
- Process Invoice & Match
- Execute Disbursement

Acquire to Retire

- Concept to Product
- · Procure to Pay
- Manage Contract
- Placement into Service
- · Manage Asset
- Dispose of Asset

Budget to Report

- Perform Planning
- Perform Program Development
- Perform Budget Planning and Formulation
- Distribute Budget
- Manage Budget
- Perform Reporting

Hire to Retire

- Manage Organization
- Acquire Human Resources
- · Develop Human Resources
- · Assign Human Resources
- · Maintain Human Resources
- Separate or Retire Human Resources

Order to Cash

- Manage Customers
- Accept Orders
- · Prioritization of Orders
- Fulfill Orders
- Reform Orders
- Manage Receivables
- Manage Cash Collection

Plan to Stock

- Create Inventory Plan
- Determine Source
- · Receive, Accept & Warehouse Inventory
- Distribute & Pre-Position Inventory
- Perform Inventory Management
- Dispose of Inventory

Concept to Product (R&D)

- Recognize Problem
- Define Capability
- Develop Product/ Project Concept
- Initiate Planning & Obtain Commitment
- · Initiate Project Development
- · Introduce Product

Environmental Liability

- · Identify Sites/Assets with **Environmental Liability**
- Develop EL Cost Estimates
- Perform Environmental Clean-up, Closure or Disposal Action
- Report Environmental Liabilities

Service Request to Resolution

- Identify Repair Requirement
- Fund Requirement
- Source Service
- Schedule Service
- · Diagnosis Repair • Finalize Requirements
- Perform Services
- Close & Position Record
- Create Bill
- Return Inventory of Use

Service to Satisfaction

- Identify Service Requirements
- Establish Service Capabilities
- Provide Service
- Measure Customer Satisfaction & Improve

Cost Management

- Establish Cost Accounting Procedures
- Develop Cost Methodology
- Perform Cost Assessment
- Perform Period End Close

· Develop Reports

Proposal to Grant Awards

- Identify & Prioritize Needs
- Execute & Review of Grant Application
- Execute Grant
- Perform Management & Administration

Market to Prospect

- Establish Marketing Plan
- Target Audiences
- Plan & Define Marketing Campaigns
- Measure & Evaluates Marketing Campaign Performance

Prospect to Order

- · Forecast to Sales
- Generate Leads
- Negotiate & Accept Orders
- Manage Customer Relationships
- Service & Support Customer

- Perform Planning
- Notify Organization
- Prepare for Deployment
- Execute Movement
- Perform Reception • Execute Theater Support
- Execute Redeployment/ Retrograde
- Execute Reset

retire is one of them, which looks into our human resources process. This includes how we go about hiring people and paying them to the point when they leave federal government; that whole end-to-end business process of looking at the business transactions that take place in bringing somebody on board until they leave federal service. Acquire to retire is that acquisition process of buying goods and services, and those related types of business processes. What we are looking at is how do we make that happen? How do we buy a ship, how do we buy an airplane? What are the key business events that take place in that process? (See Figure 1.)

What we are finding is there is a lot of variety that makes auditability a challenge. I think that's been the overall challenge to DoD. Job one has been to accomplish the mission, which is national security. In accomplishing the

mission there is a lot of variety and that's a challenge to auditability on the business side. We are working the balance of how to minimize the number of business processes, while giving confidence we are on top of our business processes and know where the money is going and how it's being spent, in order to ensure our processes and business systems are auditable and support the overall core mission of national security.

CHIPS: You spoke to this in your previous response, but one of the things that Rear Adm. Mulloy mentioned is the need to standardize the business processes among the major commands. Do you see that happening? For example, each of the systems commands will have the exact same processes, use the same business systems, the same transactions, from one end of the Navy to the Marine Corps... is that what you are looking at?



Fulfilling their Title 10 responsibilities and we are mindful of the schedule to get to auditability — but

THAT WILL PLAY OFF HOW WE DO THINGS, HOW WE AFFECT OUR BUSINESS PRACTICES."

Cook: That's our goal. To back up a little bit, there are 13 basic financial transactions that allocate the funds, obligate the funds, and dispense the funds. Theoretically, we could try to limit ourselves to the fewest options possible — 13 — but that is infeasible given the variety of activities taking place every day by the Navy and Marine Corps across the globe. Here's an example, and I'll use the Marine Corps because they are further down the road than the Navy. The Marine Corps mapped those 13 basic processes against their 17 or 18 bases and stations. The argument would be that if they are doing things differently, 17 times 13 is 221 different ways they would be doing things if they were doing them all differently. But when they mapped it out they found they are actually doing things 700 different ways.

There is no way an auditor could come in and look at 700 different business processes and be cost effective with the audit. So the Marine Corps took the comptrollers and threw them in a room and told them not to come out until they took the 700 and got it closer to 13. They came out with 58 necessary choices to accomplish those 13 transactions.

The Marine Corps is a fitting example of the challenge of variety in that it is a very young force; 70 percent of the Marine Corps is always on its first tour of duty and only does one tour of duty. So if I've got a 19-year-old I have to move and he has to learn an entirely new business process that obviously cuts into his four years of effective duty. So one of the benefits of going to 58 agreed-upon transactions you learn that no matter what base or station you are at you follow the same process, so that's a time-saver right there.

Moreover, it positively affects the schoolhouse training curriculum because it can teach to the practical application of financial management rather than theory. This enables the

Marine or civilian coming out of the schoolhouse to hit the ground running and that's a good thing.

The other part which we don't talk about much is DFAS (Defense Finance and Accounting Service). Our partner DFAS no longer has to keep track of how each base or station conducts its business practice as they now know that the Marine Corps has a single standard for the whole end-to-end process allowing DFAS to improve and become more efficient. The Navy is pursuing that same path; but still has a ways to go.

CHIPS: That's fascinating sir, I didn't realize that the detail was down to that level.

Cook: Oh, yes. The benefit of the Marine Corps is that the DON views them as a single business enterprise even though they have many major subordinate commands. The Navy has 18 different major commands and the variety of business activity just explodes by comparison. The Navy has set a goal to meet or beat the Marine Corps' 58 processes. It's great if they get there. I'm not sure if they will immediately but that's the benefit of two services under one Secretary spurring each other on and encouraging one another to excellence which is a good thing.

CHIPS: I thought it was interesting that your office was one of the signing authorities for the DON's policy of "Mandatory Use of DON Enterprise Licensing Agreements." Why did your office think it was important to have its voice in that?

Cook: We have a tight relationship with the DON CIO (Terry Halvorsen). Nothing happens without networking and money in this town, and the DON CIO knew that it needed to partner with us to support the mandate by the Under Secretary of the Navy to reduce IT spending by 25 percent. As the comptroller community is able

to view where all the resources are going, we help provide some additional governance with the DON CIO to make sure we are taking advantage of the enterprise licensing agreements and the opportunity to save money.

CHIPS: The DON CIO is very inclusive; he wants everybody to be working toward the same goals of improving business processes and reducing business IT costs.

Cook: What you'll find is that with Mr. Halvorsen, Mr. (Eric) Fanning (Deputy Under Secretary of the Navy and Deputy Chief Management Officer, Office of the Under Secretary of the Navy) and Ms. (Gladys J.) Commons (Assistant Secretary of the Navy for Financial Management and Comptroller) there has to be that very strong relationship because those three domains are intertwined and overlap. Additionally, we all have to be part of the conversation.

CHIPS: Is there anything else you would like readers to know about moving toward the goal of an audit-ready Department of the Navy?

Cook: I'll go back to the original statement that the key is doing business right. Job one is to support the Chief of Naval Operations and the Commandant of the Marine Corps in fulfilling their Title 10 responsibilities and we are mindful of the schedule to get to auditability — but that will play off how we do things, how we affect our business practices.

Even though 2014 is out there and 2017 is out there, this is about the next 200 years — can we sustain auditability? Can we sustain our business processes? Quite frankly, beyond getting the clean audit opinion is what we do to unlock the information inside our financial statements to support leadership as they make some pretty tough decisions going forward over the next few FYDP (Future Year Defense Program) cycles. (HPS)



A Landfill is No Place for PII

By Steve Muck

he following is a recently reported personally identifiable information (PII) data breach. Names have been changed or omitted, but details are factual and based on reports sent to the Department of the Navy Chief Information Officer Privacy Office.

A command Physical Readiness Test (PRT) office was in the process of moving to a new location. Office personnel boxed approximately 30 PRT records and associated documents and left them on the floor in a locked office. During the night, a cleaning crew inadvertently threw away the files. The files, spanning a more than two-year period, contained personally identifiable information including full names and Social Security numbers. Documentation also included letters of correction for personnel who failed the Physical Readiness Test. However, the specific names of the affected personnel are unknown.

The privacy officer was notified of the PII loss the following business day. At that time, command leadership was notified and an investigation commenced with the submission of an initial PII breach report via the chain of command. Command representatives also searched through trash at the landfill

where base refuse is taken for disposal, but were unable to locate the missing records.

Lessons Learned:

- A physical move of office equipment and records should be carefully planned. A move plan or checklist should delineate the steps required to securely transport and maintain accountability of documents and electronic files containing PII. This command learned the hard way about improper preparation.
- Boxes containing PII should be properly labeled and, when possible, kept off the floor and away from trash receptacles.
- It is the government's responsibility to secure PII so that personnel who do not have a need to know do not have access to personally identifiable information. CHPS

Steve Muck is the privacy lead for the Department of the Navy Chief Information Officer.



INTERVIEW WITH THOMAS W. HICKS - DEPUTY ASSISTANT SECRETARY OF THE NAVY (ENERGY)

Tom Hicks was appointed Deputy Assistant Secretary of the Navy for Energy in March 2010. Mr. Hicks serves as the Secretariat focal point on all matters pertaining to the Department of the Navy's energy conservation, energy efficiency, energy sources and energy initiatives.

Mr. Hicks joined the Department of the Navy from the U.S. Green Building Council where he held several executive roles. As Vice President of the Leadership in Energy and Environmental Design (LEED) green building rating system, Mr. Hicks led the development and implementation of all LEED rating systems. During his tenure, he led the three-fold growth of LEED activity as well as the expansion of the LEED family of rating systems.

As Vice President for International Programs, Mr. Hicks led the development of USGBC's international enterprise quadrupling global activity in LEED in two years. Most recently, he spearheaded a new strategic venture on behalf of USGBC — the Building Performance Initiative — to ensure that all green buildings meet or exceed their energy and environmental performance goals.

Consider that almost 75 percent of the energy consumed by the Navy is used afloat in ships, aircraft and vehicles, and close to 60 percent can be attributed to liquid petroleum-based fuels. Secretary of the Navy Ray Mabus has repeatedly called the department's reliance on imported fossil fuels a military vulnerability. Mr. Mabus said the DON's efforts to transition to renewable energy sources are critical to increase energy security and improve warfighting capabilities.

It takes about 1.2 billion gallons of fuel a year to power the fleet, at a cost



THOMAS W. HICKS

of \$5 billion. With the volatility of the global oil market, the Navy's costs could fluctuate by a billion dollars — money that would be taken from operations — which means the Navy would fly less, steam less and train less, according to Mabus.

Ashore, the Secretary of the Navy set the goal for commands to increase alternative energy so that by 2020, the DON will produce at least 50 percent of shore-based energy requirements from alternative sources.

CHIPS discussed the DON's energy goals and achievements with Mr. Hicks May 29.

CHIPS: The Department of the Navy has been leading efforts across the Defense Department to reduce reliance on foreign fossil fuels for several years. Can you talk about some of the DON's important energy milestones to date?

Hicks: Since Secretary Mabus laid out his goals in October of 2009, there are five energy goals, one of which is overarching that the other ones tend to roll up into, and that is by 2020 half of our energy will come from alternative sources. That affects our shore-based operations, our buildings and vehicles, and certainly our fleet. I think in both areas we are achieving significant milestones.

As it relates to our fleet, we are in the final stages of testing all of our ships and aircraft on drop-in, 50/50 blend alternative fuel. Back in April of 2010, we flew an F/A-18 [Super] Hornet on a 50/50 blend and it has since gone Mach 1.7, and we have tested at this point all of our manned and unmanned aircraft on alternative fuel blends.

More recently, in December of last year we tested what is called a landing craft air cushion, or what we like to call an LCAC, on a 50/50 blend and it achieved a speed of 50 knots which we believe is a record for the sea. [The fastest speed demonstrated on the 50/50 algal blend, an algae-derived, hydroprocessed algal oil and petroleum F-76 blend].

So we are going through and testing all of our aircraft and our ships to be able to use alternative fuels. And that is really going to culminate this year at the Rim of the Pacific exercise [June 29-Aug. 3] where we will have a carrier strike group on alternative fuel blends. So we are really excited because that will really be our first operational test of 50/50 alternative fuel blends during RIMPAC. To date all of the efforts have been in a controlled environment. So this will be the first time we are testing outside of a very controlled environment. We also have efforts outside of that.

On our shore side we have again half of our energy coming from alternative [solar/wind/geothermal] sources. Another way to restate that when you look at what we are doing is by 2020 we are going to be able to meet that goal—a gigawatt of power from renewable sources. We have set up a task force



to identify the installations, strategies, technologies, and the financing around how we are going to do that on or near our installations.

Today we have about 350 megawatts — that is about 75 percent of all DoD's renewable energy. So we already make up the lion's share of DoD's current renewable energy mix, and with this initiative we see adding 1 gigawatt to that as we go forward. Also, just to point out both the Army and the Air Force currently have 1 gigawatt initiatives of their own as well.

Some of the other things that I would highlight as we look to the fleet, for example, it's not just alternative fuel. We are also putting in a lot of effort to make the fleet more efficient both the new fleet, if you will, the new platforms that are coming online [and older ships in the fleet]. I would highlight the USS Makin Island which has a hybrid electric drive that allows it to go on electric power for about 75 percent of its performance envelope, which is great. We think the hybrid electric drive may have applications in some retrofit situations and we are exploring that today.

We are also installing stern flaps, hull coatings and propeller coatings that make the ships incrementally more efficient, so again it is not just about alternative fuels. There is a lot going on to make the ships we have today more efficient so we can get some additional operational capability out of them.

Switching gears to the Marines, they have had their Experimental Forward Operating Base, ExFOB, starting with the first one in March 2010 that has resulted in about five renewable energy technologies being brought into theater in September of 2010. These technologies were things such as LED lights [and] renewable energy blankets that Marines roll out and charge batter-

ies, and some other renewable energy systems. The result was 25 to 90 percent reduction in their energy use.

Fuel is a very hard thing to bring into theater. We have one casualty for every 50 fuel convoys we bring into theater that is one Marine killed or wounded. So if we can take more of that fuel out of theater that gives us more opportunities to have the Marines do the work that we sent them there to do and then safely return home to their families. That's really what it is about.

We are also getting additional capability with that. One Marine company using these technologies saves 700 pounds of batteries which allows them to bring in other necessary pieces of equipment besides batteries. Instead of having a battery resupply when they are out on patrols every two, three, four days, they can now go three weeks without a battery resupply. So it is really great technologies that they are employing.

The Experimental Forward Operating Base is a process and that process continues today. So now we are doing two of those per year, most recently in early May, we did what we call an ExFOB, Experimental Forward Operating Base in Camp Lejeune, and later this year, this fall, we are looking to do another one at Camp Pendleton in California. Those are the ways we can identify new emerging technologies that the Marines can use to save energy.

CHIPS: Are the initiatives for the Marines things that warfighters have said they need or were they identified further up in the chain of command?

Hicks: This whole process was done in conjunction with Marines who came back from theater or are going into theater. We certainly had heard from

Marines who said the tether to oil was something of concern to them. It made them less expeditionary and obviously there is a component there, a very serious one, related to protecting the fuel convoys. There are ways to take the energy out of theater and make the Marines more expeditionary and the process that we used, the ExFOB, was one that was fully engaged throughout the entirety of the Marine Corps.

In fact, as part of the very first ExFOB that took place in March 2010, the technologies that held the most promise were then taken to the battalion that was going into theater and they were trained on those. They made some modifications and some tweaks as necessary and then brought those into theater. They did that in September of that same year. Once done the information that came back resulted in all the battalions over there looking for the same equipment because they saw the operational advantages it gave them. Certainly, it saved energy and fuel, but it also gave them operational advantages.

CHIPS: Why do you think critics of the department's energy goals fail to see the strategic importance of less reliance on petroleum-based fuels and the other initiatives that Secretary Mabus has taken on?

Hicks: Well, I think the thing that gets lost on folks, and we're pretty clear about it is that this is not about advancing an environmental agenda. The efforts we have going on are all about enhancing our mission, enhancing our combat capability, and reducing our costs and saving lives. I mean that's what this is all about. The efficiency gains that I mentioned for the fleet, for example, can allow us perhaps instead



"Fuel is a very hard thing to bring into theater. We have one casualty for every 50 fuel convoys we bring into theater — that is one Marine killed or wounded."

of doing an underway replenishment four times a month, maybe we do an underway replenishment three times a month. So that is one extra day a ship might be available to a combatant commander for tasking, one extra day that a ship can be providing assistance to antipiracy efforts or one extra day for humanitarian assistance.

So a lot of folks just don't understand why we are doing this. It is about combat capability and mission effectiveness [and] reducing our vulnerability to price shock. And that's the piece of this I'm surprised folks don't fully appreciate and understand.

This year, in fiscal year '12, the Navy as did all the services, each received essentially a \$1 billion additional fuel bill. A bill we didn't plan for, didn't budget for but nonetheless have to find a way to pay. That resulted from the increase we faced from the price of oil. We saw a \$38 a barrel increase in oil that resulted in a \$1 billion bill the Navy has. So what is particularly challenging about that is, the way we are compelled to pay for this in the fiscal environment we are in is we have to fly our aircraft less, steam our ships less, maintain our facilities less, and we may have to move some necessary programs to future years. We are going to have to do a little bit of all of those and none of those options syncs up with energy security and national security. It is going in the wrong direction.

So for us, we see the energy efficiency initiatives and certainly the alternative fuel efforts we have underway as ways

we can change the course we seem to be headed on.

CHIP: As an early adopter of alternative fuels, has the department been successful in influencing industry development of alternative fuels for a wider market to drive down costs and expand distribution points?

Hicks: That's a great question, Sharon. As a major consumer of alternative fuels, we burn about 30 million barrels of fuel per year. One of the things we did early on is try to find ways to get alternative fuels in greater quantities and at competitive price points. To the extent that both of those conditions are met, along with the fuels being compatible with our platforms and meeting any legal requirements [Energy Independence and Security Act of 2007, Section 526], such as the life cycle greenhouse gases [emissions less than or equal to conventional petroleum] we are required to meet, and we really want to spur industry on very much in the way that DoD has accelerated other programs and other technologies in the past.

We see the way to do that is to quickly look to other agencies, specifically USDA (U.S. Department of Agriculture) and DOE (Department of Energy), and by identifying a pretty powerful authority, the Defense Production Act [Title III]. We thought this was an opportunity to marshal our resources together and partner with industry toward the development of multiple

commercial-scale alternative fuel plants competitive with petroleum.

This is the effort that we have embarked on for the last year or so. Most notably on May 18 we had an industry roundtable event [Advanced Biofuel Industry Roundtable] at USDA where we had more than 300 people from across industry to really understand what their challenges are and to make a subsequent solid RFP (request for proposal) as solid as it could be so we can get some great responses that meet the criteria that I laid out before.

That is what we have been working and we think has a lot of merit. It is also something that the Defense Production Act, which dates back to 1950, has been used to support the industrialization of many critical defense industries such as steel, titanium, semiconductors, beryllium and radio hardened electronics. We think that alternative fuels is one that we can really help accelerate, and we believe it has strategic benefit to the Defense Department.

CHIPS: Vice Adm. Philip Cullom said the department wants to create Spartan warriors, Sailors and Marines who adopt an energy frugal mind-set into their mission planning and training to reduce the vulnerabilities associated with the supply chain for refueling. Have you seen a cultural change in how personnel view energy consumption? How do you change the culture in an organization as large as the DON?

Hicks: I think you are seeing a change



"Well, I think the thing that gets lost on folks, and we're pretty clear about it is that this is not about advancing an environmental agenda. The efforts we have going on are all about enhancing our mission, enhancing our combat capability, and reducing our costs and saving lives."

in the culture and a greater appreciation of the cost and how it affects our mission as I mentioned before. [For example. I the cost of fuel that goes beyond expectation that we have to find a way to pay for and how it affects our training, our facilities and programs. We also have some programs that provide incentives for folks which we have done for a number of years. One is our incentivized conservation program. The captains of our ships, if they can demonstrate a savings [in fuel] over what they normally use, are rewarded. [The leading fuel conservers among underway surface ships receive special recognition and cash incentives upwards of \$90,000. On average, 100 ships qualify for cash awards each quarter. The award money goes to commanding officers' discretionary funds, which are often used to buy items like damage control gear or to augment the ships' welfare and recreation programs.]

Within the Marines, they are changing their ethos and including energy conservation in training and doctrine. Now, new Marines will be exposed to strategic energy conservation right from the beginning.

Beyond that, the Secretary of the Navy at a visit to the Naval Postgraduate School last September discussed the Navy's energy initiatives and announced the establishment of a new energy major. NPS is the crown jewel of the department's educational programs that many of our senior leadership attend so this effort will seed the Navy and Marine Corps of the future with a

cadre of energy-minded leaders.

We are also looking to add energy to the Battle "E" Award [given for the overall readiness of the command to carry out its assigned mission]. Battle "E" will be an additional motivation for the fleet to optimize their energy use.

CHIPS: A June 2011 memorandum released by Assistant Secretary of the Navy for Research, Development and Acquisition Mr. Sean Stackley ordered the Navy to "take substantive measures to include energy performance in the acquisition of platforms and weapon systems." The memo mandates the calculation of the Fully-Burdened Cost of Energy (FBCE) and requires the Navy to use FBCE to evaluate the affordability of alternatives and to make trade-off decisions. Also, when considering modernization and upgrades to existing systems, Navy systems commands must factor in energy efficiency. Can you provide any examples of how the directive is being applied to programs of record or major acquisitions?

Hicks: The memo has had an impact in application to ships in the AoA (analysis of alternatives). It's true that the Navy's analysis will now more deliberately consider energy consumption as it relates to future ships, aircraft and other tactical platforms.

For example, in the case of the Makin Island, if it can function like a traditional amphibious assault ship but be more fuel efficient than its brethren, be more available to combatant commanders [because it can operate longer without

refueling] that may be a key factor in the Navy's decision to procure a new ship.

CHIPS: Would you like to expand the discussion on the Navy's Green Fleet goal?

Hicks: The Great Green Fleet is an important milestone because it demonstrates that it can operate in an operational environment. The RIMPAC naval exercise has more than 22 nations participating over the course of several weeks. As part of RIMPAC, the U.S. Navy has identified a carrier strike group that will use 50/50 alternative fuel blends for two days of RIMPAC. But this is not just important for the Navy and the lessons it will learn. It is a signal to the commercial sector that the Navy is serious and committed to its energy goals, and it is a signal to other navies and countries that we are allied with that we have roles to play in each other's energy security futures. CHPS

WEB LINKS

SECRETARY OF THE NAVY WWW.NAVY.MIL/SECNAV

U.S. NAVY ENERGY, ENVIRONMENT AND CLIMATE CHANGE HTTP://GREENFLEET.DODLIVE.MIL/

MARINE CORPS EXPEDITIONARY ENERGY www.marines.mil/community/Pages/ EXPEDITIONARY ENERGY. ASPX



Bepartment of the Navy Business IT Transformation

By Sharon Anderson

Why does the Department of the Navy need to align its business information technology and processes, and what is the DON doing to speed these changes? These are the two critical questions that the DON Chief Information Officer Terry Halvorsen addressed in a town hall meeting at the DON IT Conference in Virginia Beach.

Speaking to more than 400 people in Virginia Beach on May 16, 2012, Halvorsen's remarks were directed to industry, department personnel and stakeholders of the DON.

To preserve critical warfighting capabilities, the DON took a \$2 billion cut in business IT over the five-year defense plan.

"We are in the business of war, so we have to protect that capability to do that business. That's why we are looking at taking efficiencies in business IT systems," Halvorsen said.

The DON CIO pointed to the lack of visibility in IT spending and issues with the way the DON tracks and spends IT money. "I also look at some of the things we buy, and frankly, we don't buy all the things that we should. We buy too many things that we shouldn't in some cases, and we buy lots of versions of the same software," he said.

Multiple versions of the same software and software no longer supported by a vendor add unsustainable costs because the DON must fund pricy maintenance to fix vulnerabilities in legacy systems. They also add complexity and additional expense to running the network.

"We have applications that we are running out there that cannot be sustained from a security standpoint. They have to go. We have put that decision off, but no more. They are gone — they are going to go," Halvorsen said.

Discipline, IT asset visibility and transparency in IT purchases will provide the department better control of dollars spent and better value for them.

"We have buying power that we're not using. That is not the fault of acquisition.

That's our fault. Blame it on me, we don't bundle our money. Marine Corps has got that right and [they] bundle their money to one BSO (Budget Submitting Office). There is great value in being anyone's biggest customer. You all know that, [if] you have bigger money, you come to the table and get a better deal. We've got to take advantage of that," Halvorsen said.

Other areas for analysis include business process improvements and defining a data strategy for the department.

"I get this question all the time, what's more important, the IT or the process? And I say you've got to understand the business processes. We are not one business; we are a multinational corporation in the DON. If we were a Fortune 500 company, depending on how you count the money on a given day, we'd be Fortune 3 or 4. That's pretty good; it means we are worth a lot of money. That means we want to balance process and investment in IT. So in some cases we should change process, in some cases we should change both," Halvorsen said.

Standardization and a data strategy, reducing applications, version control, aggregating IT requirements for enterprise contracts and taking the complexity out of the department's IT infrastructure will reduce costs and improve network performance. The department is aiming to simplify and streamline IT as much as possible.

According to Halvorsen, the data strategy should involve the FAM process. The Functional Area Management Initiative identifies, analyzes and ultimately reduces the number of IT software applications and databases in use across all Navy networks.

"We need to look at how we develop an overall data strategy. That's how we're going to manage our data and how we define additions to our data. That's going to become critical. Right now we are somewhat hindered in making decisions, in all of it, but particularly at the very senior levels so as we try to aggregate data, the definition of that data changes by command, by element, by sponsor, by all of it," Halvorsen said.

In regard to commercial off-theshelf software, as it applies to business systems, Halvorsen said, "Customization is bad, standardization is good."

Commands that want to customize COTS software will be required to pursue a high-level approval process, he said.

The need to change is urgent because the department is sure to have less and less money to spend on IT, and the DON can no longer afford to buy its way out of costly mistakes.

"We are not going to have that luxury. Our decisions are going to have to be more accurate and timely the first time around. Now every decision we make over the next two or three years is going to be part of history where we are going to be impacting what happens for the next 25 years, good or bad," Halvorsen said.

As the department senior official for the Freedom of Information Act, civil liberties, privacy and communications security, Halvorsen said the DON CIO will soon release several policies that detail the appropriate use and storage of data. For instance, in the case of personally identifiable information and protected health information, the only people and organizations that should have access to this data are those with the requirement and authority to make an actionable decision.

"If you can't take action on the data, you should not be collecting it," Halvorsen said.

In response to audience members' questions about delays in the Navy Information Dominance Approval System process, he acknowledged that use of NAV-IDAS does slow things down, but that is because it enforces a policy that was already in place for an IT buyer to investigate if there is an existing system or application within the department

"The money is there for us to take; we have to have the will power and the business savvy to go do that. It doesn't mean it won't be painful and it doesn't mean it's not hard, but we get paid to do some things that are difficult, and we get paid to do some things that are hard. It's something we've got to do, and that's why we are looking at IT efficiencies." – DON CIO Terry Halvorsen

that meets the same requirements before another purchase is made. He also said that while the process may be slow, there are no backlogs in NAV-IDAS.

"As you said, in the old days you use to just be able to go out and buy things. But by most standards we were spending a fairly significant amount of money on IT that was above what we had budgeted for," Halvorsen said.

Another audience member questioned whether the DON should just cancel a couple of big ticket items rather than looking for *loose change between the sofa* cushions.

Halvorsen responded that one of his favorite savings targets is printing costs which cost the department \$100 million per year. "That's the total for the ink, the toner, the paper, everything. I don't know that I would consider that couch change."

On data center consolidation, Halvorsen said the emphasis in strategy right now is strictly from a financial perspective but other considerations may play a role further down the line.

In response to slow response times on the network, Halvorsen said, "If you have bandwidth, they will use it. I am very concerned about bandwidth, and it is a big problem. We bought the absolute biggest bandwidth pipe in the world; there is nothing bigger. We increased the flow. I think it lasted a whole 63 days before we were back up running at the same level we were at before we got the big pipe. We are going to have to do something about what we let on the network."

Interestingly, Halvorsen said the No. 1 bandwidth uses on the network are not mission related. "I can't buy anymore. So we are going to have to figure out some new rules until we find some new technology."

Responding to a question about whether the department is considering a move to the Defense Information Systems Agency's enterprise email, Halvorsen said, "Right now, Army is doing some really good things; DISA is doing



Department of the Navy Chief Information Officer Terry Halvorsen adddresses the audience at the DON IT Conference at the Business IT Transformation Town Hall May 16, 2012. The DON CIO hosts two conferences each year, one on the West Coast and one on the East Coast in the fleet concentration areas of San Diego and Norfolk/Virginia Beach. The conference is free and open to all DON, government, military and support contractor personnel.

some really good things. I think one of the things you have to understand is that the Army saves money on collapsing multiple network infrastructures and old network directories. We have already done that [with the Navy Marine Corps Intranet in 2000]. We will go to DISA when it makes operational and financial sense to the DON."

Halvorsen acknowledged that IT business reform is hard but absolutely essential to ensure warfighting effectiveness.

"The money is there for us to take; we have to have the will power and the business savvy to go do that. It doesn't mean it won't be painful and it doesn't mean it's not hard, but we get paid to do some things that are difficult and we get paid to do some things that are hard. It's something we've got to do, and that's why we are looking at IT efficiencies."

There is no turning back and no doing

business the "old way" under the fiscal constraints the Defense Department faces. In this regard, the DON CIO has sought input from industry innovators and basically anyone with a good idea.

"Maybe for the last 10 years we were asking the question: 'What do we need to spend money on to execute the mission?'Today the question is 'What can we not spend money on to keep up mission capabilities?'What investments do we have to make to ensure that combat capability is there, but it's still got to come out of available money, and that available money will become less. I think that's going to happen. So that's a different set of questions to ask and answer." (HPS

For more information about IT efficiencies and policy, visit the DON CIO website: www.doncio.navy.mil.



By Pat Dickerson and Geoff Weber

THE SECRETARY OF DEFENSE HAS CHALLENGED THE DEPARTMENT OF THE NAVY (DON) to achieve audit readiness with its Statement of Budgetary Resources (SBR) by the end of calendar year (CY) 2014. Specifically, the directive requires the following:

- » Achieve audit readiness of the SBR by the end of CY 2014.
- » Meet the legal requirements to achieve full audit readiness for all financial statements by 2017.
- » Increase emphasis on accountability of assets.
- Ensure mandatory training for audit and other key financial efforts, and establish by the end of CY 2012, a pilot certification program for financial managers similar to the one now in place for acquisition managers.
- » Execute a full review of the department's financial controls during the next two years and establish interim goals against which to assess progress.
- » Appropriately resource the efforts to meet these goals.

The SBR and related disclosures provide information about an agency's budgetary resources and the status of those resources at the end of the fiscal year. These disclosures link budget execution data in an agency's financial statements to information reported in the "actual" column of the Program and Financing Schedules in the Appendix of the Budget of the United States Government.

While the DON comptroller is responsible for the department's financial statements and Financial Improvement and Audit Readiness (FIAR) Plan, achieving audit readiness requires support from functional leaders across the department, especially the information technology community. The financial and IT communities jointly bear the burden of proof to provide evidence demonstrating that reported financial figures are fairly stated in accordance with federal accounting standards.

Information technology systems containing financially relevant data are integral to audit readiness. Auditors will assess controls over system data confidentiality, integrity, availability and non-repudiation to make a determination of whether system data is reliable. When key controls over systems and data have been implemented and are functioning effectively, auditors can place greater reliance on data within these systems, limiting substantive sample sizes during a financial statement audit. Controls considered key to a financial audit include, but are not limited to, management of physical and logical access to systems and data, segregation of system user duties, configuration management and interfaces between systems.

The IT community must cooperate with the financial community to ensure that data and transactions captured by DON systems meet minimum auditability requirements. In addition, IT professionals are responsible for ensuring that key system controls are in place, underlying processes and the related key controls and flow of data are completely and accurately documented, and that the controls are effective.

One of the key challenges the military services have encountered in the audit readiness effort is the difficulty in tracing the flow of transactions and individual data elements from initiation through reporting. Many DoD systems, particularly older legacy feeder systems, were not designed to capture transactions at a level of detail that readily supports a financial statement audit, especially requirements established after those systems were fielded, such as those in the Federal Financial Management Improvement Act (FFMIA) of 1996. Additionally, enterprise resource planning (ERP) systems do not guarantee auditability. ERP systems may not fully support audit readiness or may not yet be fully operational at the time of audit. Also, problems with feeder system data can prove to be an ERP system's Achilles' heel.

Another common challenge is insufficient system

process and data flow documentation. Documentation is often incomplete or does not reflect system updates, resulting in an inability to determine whether controls exist and/or are suitably designed. When system documentation is incomplete, inaccurate or unavailable, an auditor is unable to design or execute procedures to assess the operational effectiveness of system controls.

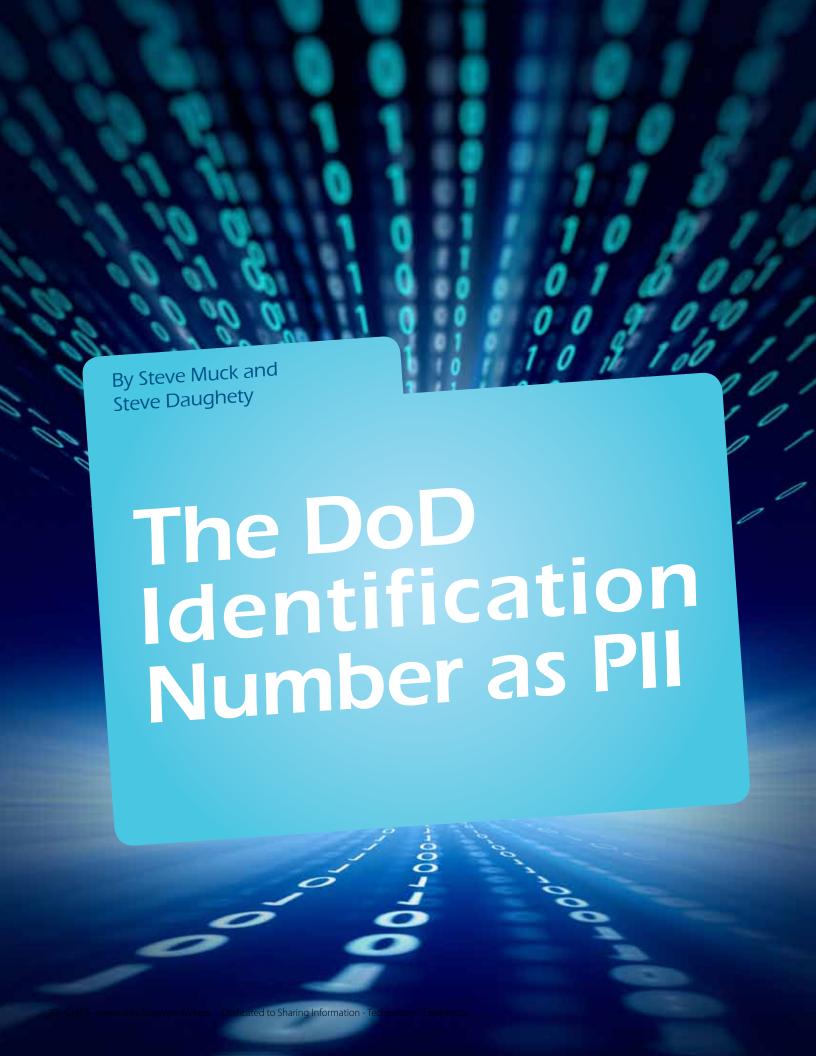
To address these challenges, the IT and financial communities must collaborate to identify financially relevant accounting and feeder systems, data and transactions. Next, these communities should work together to jointly document the business processes within these systems and identify relevant business controls. To ensure continued success, standard processes for updating, storing and retrieving relevant policies, procedures and system documentation must be developed.

The FIAR has provided some guidance on how to document and assess system controls:

- **Discovery:** Document the business environment, define and prioritize processes into assessable units, assess risks and tests controls, evaluate supporting documentation, and identify deficiencies.
- **Corrective Action:** Define and design an audit-ready environment, develop solutions to resolve deficiencies, identify resources required to implement corrective action plans (CAPs) and define validation procedures to determine if CAPs remediated deficiencies.
- **Evaluation:** Management evaluates corrective action effectiveness through testing and determines whether it can assert audit readiness.

As IT and financial professionals join together with program managers to address system auditability requirements, each will identify opportunities for greater standardization and efficiencies across commands and systems. Further, these efforts will help eliminate duplication and inaccuracy in system and process documentation. Maintaining this information centrally will facilitate greater information sharing and decreased response times when collecting and providing information. More reliable processes and system information will naturally result. (HPS

Pat Dickerson is the segment program manager for information systems controls, civilian pay and entity level controls for the Department of the Navy, Office of the Assistant Secretary of the Navy (Financial Management and Comptroller) financial operations. Geoff Weber provides audit readiness support to the Office of Financial Operations-4.



or many years, the Electronic Data Interchange-Personal Identifier (EDI-PI) has been a unique identifier for personnel affiliated with the Department of Defense. Until recently, it was used only by DoD information systems to facilitate machine-to-machine communications and appeared in digital signatures. When the EDI-PI was selected to become the DoD identification number, the purpose of the identifier changed. The DoD ID number is now intended to be known by the individual to whom it belongs and is used for personal access to systems, on forms, in digital signatures and for other uses typical of physical and technical identification processes. The expanded use of the DoD ID number led to questions regarding its status as personally identifiable information (PII).

Personally identifiable information refers to information that can be used to distinguish or trace an individual's identity. The definition of a record and system of records under the Privacy Act makes it clear that any "identifying number assigned to the individual" triggers provisions of the Privacy Act if the record is retrieved using a unique identifier. The loss or disclosure of the DoD ID number is considered low risk in conjunction with identity theft or fraud. Nevertheless, the Office of Management and Budget definition of PII clearly indicates that the DoD ID number is PII, regardless of its low risk of compromise.

To ensure that the DoD ID number maintains its low-risk category as PII and does not become a vulnerability like the use of an individual's Social Security number (SSN) — another high-risk personal identifier — the DoD ID number will only be used as one factor in a multifactor authentication process. In this way, knowledge of the DoD ID number alone does not grant access to records unless accompanied by another factor such as a PIN number or biometric.

The DoD ID number is not to be shared with organizations, agencies or corporations outside of DoD unless such use is established by a memorandum of understanding (MOU) with the DoD to implement a necessary DoD business activity. Such MOUs are administered by the Defense Manpower Data Center (DMDC) and include, at a minimum, provisions ensuring that the recipient uses the DoD ID number as one part of a multifactor authentication and does not share the information unless granted permission by DMDC. These rules are codified in a naval message released by the DON CIO, WASHINGTON DC 171625Z Feb 12, "Department of the Navy Social Security Number Reduction Plan Phase Three."

It is common practice today to use digital signatures which contain an individual's DoD ID number, on

documents and emails. These documents and emails when sent outside the department may be made public in the authorized release of records, thereby exposing the DoD ID number.

The DoD ID number, by itself or with an associated name, shall be considered internal government operations-related PII. Since the loss, theft or compromise of the DoD ID number is low risk for possible identity theft or fraud, a PII breach report will not be initiated unless accompanied by other PII elements, such as date of birth, birthplace or mother's maiden name, which would normally require a report to be submitted. CHPS

Steve Muck is the privacy lead for the Department of the Navy Chief Information Officer (DON CIO). Steve Daughety is a privacy analyst supporting the DON CIO.

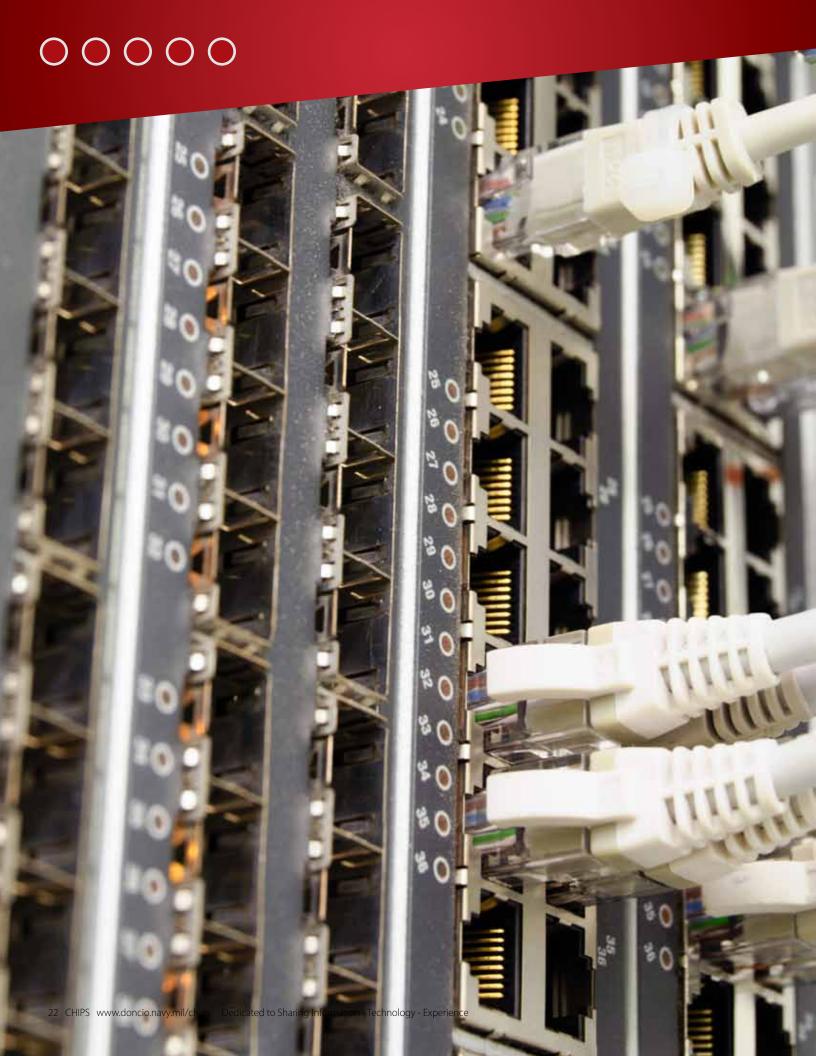
For more information:

Removal of an SSN from ID cards:

http://dpclo.defense.gov/privacy/documents/SSN%20 from %20 ID%20 Cards.pdf

DoD Social Security Number (SSN) Reduction Plan:

http://dpclo.defense.gov/privacy/documents/DTM-07-015(ch3).pdf and http://www.doncio.navy.mil/contentview.aspx?id=1912





By Neil Gaudreau and Jeffrey Combs

When he opened the email, Gunny Smith thought it was just junk mail and inadvertently activated the embedded malware that attacked his computer, as well as the entire office's cyber defenses.

Three system engineers discovered that the new Department of Defense (DoD) standard desktop operating system generated false intruder alerts.

An employee using his DoD computer accidentally down-loaded a zero-day exploit by clicking on a sports website URL, while surfing the Internet during his lunch break.

A military service member clicked on a URL embedded in an email from an unfamiliar source and unknowingly downloaded the Conficker worm remote-access Trojan virus onto the DoD network.

Could any of these scenarios occur in your organization? How do you defend against security risks? What other threats keep you up at night? Unfortunately, these are not just scenarios, they are real-world, real-time threats that occur regularly on DoD networks. The bad guys are smart and computer savvy — and they are scheming to bring down DoD cyber defenses even as you read this article.

To defend and combat against potential threats to DoD networks, the DoD Cyber Information Assurance Range (Cyber Range) was developed to test, train and educate the DoD workforce.

We Train as We Fight

The DoD Cyber (IA) Range is a realistic network environment that is a simulation of operational networks and is used to safely test capabilities and train DoD personnel on how to prevent and defend against network intrusions. The Cyber Range, which replicates Global Information Grid (GIG) characteristics, supports IA, computer network defense (CND), and other DoD cyber requirements derived from the

strategy for net-centricity and the Comprehensive National Cybersecurity Initiative (CNCI) of 2008, which mandated the creation of a dedicated test bed to increase the security of DoD networks and expand cyber education within the department.

The Cyber Range allows testing for the full range of network operations, as well as CND, IA, exploitation and attack cyber events. The Cyber Range supports the testing and evaluation of new capabilities; immersive training; tactics, techniques and procedures development and validation; system interoperability and integration testing; operational and developmental testing; and certification and accreditation processes.

This Cyber Range, which is managed and operated by the United States Marine Corps as the executive agent, has been operating in Stafford, Va., since October 2009.

Supporting the DoD Environment

The Cyber Range removes the risk to operational networks by allowing the affects of cyber training and testing to be fully realized in a closed, realistic, network environment identical to the cyber work environment.

The Cyber Range is a persistent environment that is maintained by network professionals and is available to DoD customers at little to no cost. DoD customers who require a realistic network environment do not have to fund, design, purchase and build an environment for a single purpose. Access to the Cyber Range can be obtained by several secure transport methods from the customer's base station; thereby, reducing or eliminating the travel costs associated with traditional test, train and exercise events.

Additionally, there are no direct costs to customers, unless they define a specific requirement that is not currently incorporated into the Cyber Range. In that case, customers can provide a hardware device or software application for the Cyber Range staff to integrate into the Cyber Range construct. Customers can also provide funds for the Cyber Range to purchase a device on their behalf.

Table 1.

| Training Events | Exercise Events | Evaluation | Testing Events | Briefs/Demos |
|-----------------|-----------------|------------|----------------|--------------|
| (# of People) | (# of People) | Events | (# of People) | |
| 20 (240) | 3 (25) | 5 | 18 (93) | 111 |

DoD Cyber (IA) Range Mission Support

The Cyber Range supports test, train and exercise requirements for on-site and remote connectivity training courses. It provides the capability to test and evaluate new vendor products, programs of record (PORs) and Host Based Security Systems (HBSS). It hosts technology demonstrations and experimentation; training events for students supporting Defense Information Systems Agency enterprise and service specific training; and informal, hands-on, rapid experience training, allowing cyber defenders more time on their tools. Customers can also conduct a pre-deployment exercise or a limited cyber exercise supported and hosted on the range.

See Table 1 for a record of the missions completed by the Cyber Range as of April 13, 2012. Although Cyber Range staff is extremely busy supporting customers from across the DoD, they are eager to support more customers because they understand the need for the robust testing and training environment that the Cyber Range provides.

The Cyber Range staff does not perform testing, conduct the training or guide the exercises. Rather, they

provide the environment for the testers, instructors and exercise coordinators to conduct their events in a realistic environment. Figure 1 lists the services and logical and physical attributes of the Cyber Range.

As evidenced in Figure 1 below, the capabilities, tools and support that the Cyber Range provides, and the growing awareness in the DoD and intelligence community of the range and its successful mission accomplishments, make it a ready-made solution for the Navy's cyber program. Using the Cyber Range is a viable solution for any program because it ensures responsible fiscal stewardship and avoids duplicating existing capabilities. The DON Chief Information Officer released a memo, Feb. 1, "Department of the Navy Cyber Range Policy Guidance," which states that it is the DON CIO's intent to consolidate and conduct the Navy's and Marine Corps' cyber training, exercises, and test and evaluation events by leveraging the capabilities of the DoD Cyber (IA) Range. The policy is located on the DON CIO website at: www.doncio.navy.mil/PolicyView.aspx?ID=3744.

Figure 1.

AVAILABLE IA/CND TOOLS

- » ArcSight
- » Sourcefire
- » HBSS
- » Splunk
- » Wireshark
- » Palo Alto
- » Securify
- DoD Assured
 Compliance Assessment
 Solution (ACAS)
- » IPSonar
- » NIKSUN

ENVIRONMENT FEATURES

- » Multi-protocol Label Switching (MPLS) Cloud
- » Defense Enterprise Computing Centers (DECC) and Community Data Center (CDC), Internet Access Point, Multi-WAN Transport
- » Base boundary defense
- » Base network infrastructure
- » Virtual actors
- » Full Microsoft Office suite
- » Numerous operating systems
- » Distributed Capabilities

ENVIRONMENT FEATURES

- » Virtual Internet
 - » Hundreds of sites
 - » Full Domain Name System (DNS) replication
- » Network- and host-based traffic generation
- » Malicious content
- » Boundary defense
- » Real Hardware
- Various Security Technical Implementation Guides (STIG) configurations

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Right: The DoD Cyber Range supports a Host Based Security System (HBSS) Computer Network Defense Service Provider (CNDSP) 501 training course in June 2011. Photo courtesy of ManTech International Corp.



Cyber Range Kudos

Marine Corps Intelligence Activity (MCIA) Technical Surveillance Team (TSCM) (July 2011): (Exercise Objective: Provide a summary of the use of the DISA information assurance (IA) test ranges for the purpose of testing TSCM platforms and the training of new and existing TSCM personnel.)

"The design of the range environment allowed our team to adequately train on our gear in a non-mission environment that looked believable."

"New Product" Evaluation (May 2011): (Exercise Objective: This product was evaluated to assess the IA posture of the system; assess operational effectiveness based on how it might be used; evaluate network performance, scalability and resiliency; and to assess the computer network defense (CND) effectiveness of its architecture and mechanisms.)

"This is the most cost-effective way of doing business. Tier One environment without the shortcomings of operational factors like scheduling, testing and illusive separations between testing and production environments that normally handicap many day-to-day business missions and operations."

(March 2012) The DoD Cyber Range was recently recognized by DoD program managers as instrumental in the success of a recent Joint Capability Technology Demonstration of emerging computer security technology. The customer chose the Cyber Range for its ability to customize a particular defensive tool used for specific types of computer malware, which can be tested on a non-operational network. The Cyber Range provided a realistic Internet environment with both friendly and adversarial actors to demonstrate the latest capabilities to protect computers against a variety of Internet-based attacks.

For more information on how the DoD Cyber Range can support DoD testing, training and exercise requirements, email the customer management team at IARangeCMT@itsfac.com.

Neil Gaudreau is the engineering & compliance branch head, Headquarters Marine Corps C4 Department, Cybersecurity Division. Jeffrey Combs is the Navy/Marine Corps, DoD Cyber (IA) Range program manager.

Navy Operational Fitness and Fueling Series

An app for fitness and health

By Sharon Anderson

Forget Angry Birds, the Navy has an app that is beyond cool. Called the NOFFS, or Navy Operational Fitness and Fueling Series, the app provides Sailors with world-class physical fitness and nutrition information. It is designed to assist Sailors in maintaining peak physical readiness and is consistent with the 21st Century Sailor initiative to maximize personal readiness, maintain the resiliency of the force, and to sharpen the most combat effective force. But mostly it looks like fun!

No need to hang out at the gym, the NOFFS program is portable and readily accessible whether Sailors are underway or at home. Just like the advantages of working with a personal trainer, the program can be adapted to any environment or fitness level and encompasses comprehensive fitness and health elements that can be tailored to an individual. NOFFS includes a movement library. virtual trainer, virtual meal builder and other educational materials for a wellrounded fitness program. Developed as a component of the fitness package, the fueling aspect of NOFFS provides Sailors with the tools required to make healthy nutrition choices in both shore-based and operational environments. All exercises in NOFFS are fully illustrated with photos, performance instructions and videos so there are no excuses not to get or stay in shape.

Feedback in response to NOFFS has been encouraging, said Lisa Sexauer, fitness, sports and deployed forces support program manager for Commander, Navy Installations Command (CNIC). "It has been very positive. The app is rated as four out of five stars and as a whole [Sailors] are pleased with its overall functionality. We do plan for further enhancements," she said.

The Navy Operational Fitness and Fueling Series app can be downloaded from the iTunes App Store for free. Because it is a huge file, it is recommended that you download it over a Wi-Fi connection or

on iTunes and then sync to your phone. An iPad version of the app is expected to be released in the next few months. Versions of the app for Android and Windows phones are in development, but no release date is available as of this writing.

The entire app can be accessed without cell phone service or an Internet connection once the app is downloaded to the iPhone. This is a great feature since most of the bandwidth on ships is devoted to mission-critical systems; also, personnel are often deployed to remote or austere locations where Internet access is unlikely. What this means is that Sailors can stay motivated anytime, anywhere.

NOFFS will get even better; improvements will be released in phases that will add functionality and overall appeal, according to Sexauer.

"NOFFS 1.0 is complete, but we are currently in the midst of developing three new workout series. Specifically, there will be a strength series, an endurance series and an austere series, and each will be delivered on the same tech platforms as the current series. Further, the meal builder will be revised to offer 10 zones vice the five we have now.

"We also plan to develop the virtual meal builder on our website and the app to allow users to populate their food choices into a personal meal plan for the day. Once NOFFS 2.0 is released, we'll begin work on 3.0. Fitness programs have to be dynamic to remain relevant and effective so additions are important," Sexauer said.

Zones refer to components in the meal builder (www.navyfitness.org/fitness/noffs/interactive_mealbuilder) that allow you to customize your meal plan based on your current weight, gender and goal (lose, maintain or gain). Once you make your selections you are assigned zones which outline the number of calories you should take in each day, for example. Calories are broken down by each meal.



The NOFFS iPhone app was developed as a partnership between the CNIC Navy Fitness Team, Center for Personal and Professional Development (CPPD), and Athletes' Performance Institute (API), but Sailors also weighed in on their preferences.

"Sailors were involved. In fact CPPD conducted a baseline assessment and over 750 Sailors were interviewed prior to development. They were very clear: do not deliver this program in a manual or on a CD. This was the drive behind providing multiple delivery platforms such as the web-based virtual trainer, the iPhone app and the laminated card sets provided to ships," Sexauer said.

NOFFS provides naval personnel with the same caliber of fitness training used by professional athletes; it can also be accessed from the Navy Fitness, Sports and Deployed Forces Support website at www.navyfitness.org/ and produced in hard copy. The website contains a plethora of tips and downloads to support healthy eating and exercise and encourages use for the "entire Navy family."

The goal of the Navy Fitness Program is to create "Fitness for Life" for the entire Navy population, including active-duty Sailors, family members, retirees and Defense Department civilians.

Get in on the action — exercise and healthy eating just got easier!

Navy Fitness, Sports and Deployed Forces Support: www.navyfitness.org/.

Sharon Anderson is the CHIPS senior editor. She can be reached at chips@navy.mil.

Software Licensing – Smart Spending in These Changing Times

By Sharon Anderson

Billions of dollars are invested in commercial software across the Defense Department annually, but licensing rights are complicated and affect the total cost of ownership (TCO) for a command and the Department of Defense positively — if defined correctly — and negatively — if they are not.

Agreeing to standard terms and conditions can be hazardous to your program's health and financial solvency. Companies change end user license agreements (EULAs) frequently and software buyers must stay on top of current trends and best practices to ensure their money is well spent and their programs are successful. Approaching the purchase of software licenses in a methodical way ensures consistency across the DoD and will yield better results for your organization and the department.

The DoD effort to function as an enterprise means we all should operate with the same commercial licensing strategies and contractual framework; the DoD Enterprise Software Initiative (ESI) was established to assist organizations in purchasing licenses and in IT asset management.

The term "EULA" has multiple connotations for commercial software. Other names include: Purchaser Use Rights, Software License Agreement, Software User Rights Agreement, and there can be others as well.

In this article, EULAs are defined as the comprehensive license agreement between the government and a publisher or reseller — which can extend beyond simply end user's rights. There are different kinds of EULAs: commercial, General Services Administration (GSA), government and the ESI Enterprise Software Agreement (ESA) version.

When purchasing a license always ask if a government EULA is available and remember that the order of precedence is key in resolving any inconsistencies in the software publisher's end user license agreement.

Software Acquisition Process

Phase 1. Assemble the Right Team

Assembling the right team is so important for a number of reasons, for example, requirements personnel may understand technology but not licensing which can be complex. Also project personnel may be so focused on the success of their program; they may not have the enterprise perspective in mind when purchasing software. Bringing in contracting personnel as early as possible into your process can go a long way in ensuring that the government's interests are protected. The software acquisition process is summarized in Figure 1.

Phase 2. Define the Requirement

What do you need to do with the software? Will you need to manipulate data or just view static data? Will the software need to be shared inside or outside your business unit or organiza-

tion? Define the scope of the project, will a test and development license suffice or will you need a full use license? Describe your requirement by giving examples and definitions to reduce ambiguity. Describe your customer base clearly: government, civilian, military, contractors supporting government. Will the software run on other devices or will there be other uses?

Define the number of years coverage is needed, and whether software distribution has been considered. For example, will you need hard copy media and is it identified and included in the purchase price? Is there a right (free of charge) to make unlimited copies of the software for internal use in non-production instances?

Is electronic download available or are there special distribution scenarios that need to be addressed in the requirement and used in the evaluation for award?

The software industry can be volatile with companies merging or going out of business, will you need an escrow agreement? An escrow agreement, sometimes called a source code repository, is the deposit of the software source code with a third party escrow agent. Escrow is typically requested by a party licensing software (the licensee) to ensure maintenance of the software should there be a "triggering" event. The software source code is released to the licensee if the licensor files for bankruptcy or otherwise fails to maintain and update the software as promised in the license agreement. Escrow is usually only applicable in critical use situations.

Phase 3. Select the Software

Seek advice from consultants, license experts, including the DoD ESI software product managers (SPMs – www.esi.mil/ask-SPM.aspx), a software attorney, or other DoD components that may have valuable experience in the selection and licensing process.

Use existing contracting vehicles when they are available. Define the process you will use to select the product or vendor to meet your requirement by outlining technical evaluation criteria. Ensure you comply with your service component policies for licensing commercial software.

If your process leads you to select a limited or sole source, you must provide brand name justification.

Phase 4. Validate Pricing

At this phase a best value analysis will help determine the true cost of the software. Analysis includes determining the TCO, terms and conditions and price. Do your homework; get a price estimate based on market research. Get the best pricing by considering market research findings and ensure discounts are appropriate for the size of the order. Spot discounting is expected when buying large quantities.

If the product is available on DoD ESI or SmartBUY, you must contact the SPM if you find that ESI/SmartBUY is not the best value. Often, price inconsistencies occur because the negotiated ESI/SmartBUY terms and conditions (Ts & Cs) are a better value, as well as the preferred Ts & Cs for the DoD.

There are several license models to consider:

Concurrent Users. License price is based on the maximum number of users who could be using the software at any given point in time.

Named Users. License price is based on the total number of individuals in the user population.

Processor Based. License price is based on the number of computers (CPUs) and cores to which the software can be deployed.

Enterprise. License price is based on a decision to deploy the software across an entire enterprise (as defined by the customer). This model is used primarily with large, multinational or global customers with a high numbers of users — usually more than 10,000.

Site Unlimited. This model is used primarily with large, multinational or global customers with a high number of users usually more than 10,000.

Subscription. This model calls for periodic payments instead of a lump sum payment. It may also be selected when a customer does not want to deploy the software within its IT environment, as in a Software as a Service (SaaS) arrangement.

License Type and Use Rights Checklist

Identify how the product is licensed (named user, concurrent user, device, CPU, etc.) and specify if ownership is "perpetual" versus "term" or "subscription." A perpetual license allows use of the software for an unspecified period of time. The license is paid for once and does not need to be renewed. A term or subscription license grants end user rights for a specific period of time and must be renewed for continued use.

Identify the entities that are permitted to use the software

(government and contractor) and fully define terms such as: enterprise, program, affiliate, internal use and subsidiary. Check for additional rights, for example, some licenses allow home use or on a laptop, in addition to the office setting.

Check for unusual license metrics such as usage charges tied to virtual machines or remote access.

Check for specific license restrictions such as those related to hardware make, model or geographic location.

Contracting Vehicle Priority Sequence

You must use the preferred methods of purchase in order of precedence as defined in Federal Acquisition Regulation (FAR) 8.002 and Defense Federal Acquisition Regulation Supplement (DFARS) 208.002 which specify use of government supply sources for purchasing software licenses.

Considerations most pertinent to commercial off-the-shelf (COTS) software acquisition:

- DoD ESI Inventory check for "Inventory Box" at www.esi.
- DoD ESI/SmartBUY;
- DoD ESI specifically cited in DFARS 208.74;
- DoD SmartBUY policy memo of Dec. 22, 2005. Visit www. gsa.gov and www.gsaadvantage.gov;
- DoDI 5000.2, Enclosure. 5, paragraph 1. c. 6: "When the use of commercial IT is considered viable, maximum use of and coordination with the DoD Enterprise Software Initiative shall be made;"
- Component-specific policy;
- GSA schedule;
- Other existing contracts; and
- Open market.

Figure 1. Sample Software Acquisition Process

1. Assemble the Right Team

- Requirements personnel may understand technology but not licensing.
- Requirements personnel may not have the enterprise perspective when selecting a software solution.
- Bring contracting personnel in as early as possible to ensure the government's interests are protected.

2. Define the Requirement

- What do you need to do with the software?
- Define the need to manipulate data versus static data (view only).
- State if there is an internal/external sharing requirement (net-centricity).
- Address scope of project test and development versus full use license.
- Describe your requirement give examples and definitions to reduce ambiguity.
- Describe your customer base clearly: government, civilian, military, contractors supporting government, computing/mechancial devices, etc.
- How many years coverage are needed?
- Has software distribution been considered?
- Is there a need for an Escrow Agreement?



Figure 2 summarizes the process for a DoD program to follow when it has been determined that:

(a) commercial software may satisfy the DoD program's requirement and (b) ESI has an agreement in place for the product(s) required.

Although using a DoD ESI end user license agreement will ensure that the terms and conditions have been "scrubbed" for you, you should still specify definitions and examples of intended use to eliminate ambiguity. Clearly define additional license rights and specify the addendum changes that are at no additional cost. Check that a right granted in one area of the agreement is not changed or removed by another provision in the agreement. This is important because COTS software procurement agreements generally involve multiple, and often conflicting, sets of terms and conditions.

Every software publisher has a unique end user license agreement and a vendor (may be the publisher's reseller) proposal may add additional Ts & Cs. DoD ESI license agreements resolve conflicts in the terms and conditions. ESI/SmartBUY agreements are based on the GSA schedule but with negotiated and enhanced Ts & Cs that provide the best value to DoD for COTS software. Especially when buying software not included in the DoD ESI, check the EULA to ensure that provisions are not in conflict with federal procurement laws. Ensure rights are clearly defined, quantifiable and predictable.

Top 12 Key Clauses

End user license agreements typically include the following clauses: Warranty, Transfer Rights, Third Party Software, Click-Wrap Licenses, Audit Rights, Automatic Renewals, Termination Rights, Governing Law, Order of Precedence, Installa-

tion Restrictions, Virtualization and Maintenance/Assurance. Examples of acceptable and unacceptable clauses are available on the DoD ESI website: www.esi.mil.

Warranty. Understand the warranty protection afforded by the FAR; ensure the warranty begins with productive use, not with delivery and that the buyer's requirements are adequately documented.

Transfer Rights. Add language in the terms and conditions of your order with those Ts & Cs taking precedence over the EULA that allow for transfer of your licenses within an affiliate of DoD. This is a critical advantage because organizations within DoD frequently merge, realign or are disestablished. Continued use of the software under these conditions ensures that new licenses will not need to be purchased. At a minimum, obtain transfer rights within your component, for example, Department of the Navy, Department of the Army, and Department of the Air Force.

Third Party Software. Embedded third party software could increase the cost of procuring the software over time. DoD must be aware of third party software requirements embedded within the EULA, and you must consider the risk of procurement.

Click-Wrap Licenses. Third party software may include a click-wrap agreement which is unacceptable. Publishers of shrink-wrap software or online applications generally use click-wrap licenses to obtain end user consent. But agreeing to the terms and conditions specified may cause potential compliance problems. Understand what the EULAs state and try to eliminate this requirement in your terms and conditions, in other

Figure 2. COTS Ordering Process — there are two basic paths

Path 1: Only one product will meet requirements



^{*} If a third party/integrator is acquiring COTS software on behalf of a DoD program, authorization must be issued by the third party's contracting officer

^{**} If ESI has an enterprise license or existing inventory of licenses for the required COTS software, contact the SPM (www.esi.mil) to satisfy the requirement.

words, your defined Ts & Cs should take precedence. The ESI end user license agreement includes language giving precedence of the ESI EULA over a click-wrap license, thereby voiding any conflicting click-wrap license terms and conditions. In this case, users can click "accept" if necessary without jeopardizing the terms of the ESI EULA.

Audit Rights. You should pay close attention to audit rights. The DoD recommends incorporating audit rights specifying that the buyer (DoD) should perform self-audits and report no more than once per year. Ensure self-audit clauses do not allow access to a government network or site without prior consent and by individuals who do not meet the security requirements of your organization. Audit clauses may not contain language that obligates the government to pay for the audit. An essential note here is that you understand the type of license you have and know how to count actual use in your organization. Put in place a process for IT asset management for the program, business unit or organization covered by the EULA.

Automatic Renewals. Avoid automatic renewal clauses. Potential anti-deficiency issues could arise. You should have a process in place that will alert you when subscriptions or maintenance and support agreements are about to expire.

Termination Rights. Understand the implications to software use and maintenance rights if an order is terminated without completion of expected payments. Address retention of rights when vendors are bought by other companies or when products are re-packaged under another name. Beware of any clause that gives the vendor the right to terminate or limit the government's rights upon termination.

Governing Law. Federal law shall apply and govern the terms of the software license. The terms and conditions of the EULA or the ordering documents shall reflect that federal law will apply to the government contract and therefore federal courts will have jurisdiction in case of a dispute. Buyers should be careful not to allow a Choice of Law (COL) provision from the publisher. Such a provision would be invalid by law, but it could cause an unnecessary disagreement with the publisher.

Order of Precedence. DoD terms shall take precedence over any conflicting terms in a vendor's agreement. If you are not able to change the EULA, have the terms of your order take precedence over the publisher's EULA. If you are working with a reseller, get a letter from the publisher or original equipment manufacturer (OEM) indicating agreement to your terms and conditions.

Installation Restrictions. Some publishers specify installation restrictions, for example: "You shall only install the software on hardware approved by the software vendor." Be aware of hardware restrictions since they could impose significant cost to your program. This is a risk that you may not overcome. It should weigh heavily in your decision to acquire the software. You should be aware of the additional expense to licensing costs in a multicore processor implementations.

Virtualization. If you intend the software to operate in a virtualized environment, you must negotiate this requirement in your terms and conditions. Remember when you virtualize hardware you still need a software license for the virtualized servers. Be aware of this requirement because it can increase your total cost considerably.

Maintenance/Assurance. What does software maintenance include? Understand the terms of the software maintenance. Know your rights. Clearly define the scope of maintenance that is included in the price. For example, updates and patches may be provided as a license right and may not require the purchase of maintenance. Major releases and upgrades may be considered the right to a future version of the software, and therefore, would be considered software maintenance.

A right to future versions is usually considered software maintenance. Technical support is dependent on the publisher and may or may not be included in a maintenance agreement. Other benefits such as training are dependent on the publisher, as well, and may or may not be included in maintenance.

Software maintenance is often considered a "product." GSA schedule definitions have changed; see GSA special item numbers (SINs) 132-33 and 132-34. The determination of product or service could affect the allowable contract coverage period and funding.

One Final Word

The DoD ESI team likes to say — "Measure Twice, Cut Once" — in other words carefully consider your requirements and options, use the Software Buyer's Checklist available at www.esi.mil, consult a software attorney, if you have one in your organization, and consult with other experts and your contracting team to ensure that you are getting the best value for your organization and the DoD when acquiring software. CHPS

You don't have to go it alone! The DoD ESI website features a resource library to assist ESI customers and vendors in locating helpful policy information, tools and links in one convenient location, please visit: www.esi.mil.

Sharon Anderson is the CHIPS senior editor. She can be reached at chips@navy.mil.



Q&A with Capt. Danelle Barrett – Commanding Officer Naval Computer and Telecommunications Area Master Station Atlantic

Capt. Danelle Barrett graduated from Boston University in 1989 with a Bachelor of Arts degree in History where she received her commission from the Naval Reserve Officer Training Corps. She assumed command of NCTAMS LANT in August 2011.

Her more recent assignments include: Deputy N6 and Communications Officer, Commander, Carrier Strike Group 12; Deputy Knowledge Manager, Multi-National Forces Iraq; Information Operations Planner and Knowledge Manager, Standing Joint Force Headquarters, U.S. Pacific Command; Assistant Chief of Staff for C5, Commander, Carrier Strike Group 2 which included deployments in support of Operations Enduring Freedom in Afghanistan and Unified Response in Haiti; Information Professional Senior Officer Detailer, Commander, Navy Personnel Command.

Capt. Barrett responded to CHIPS' questions in writing in June.

Q: Can you talk about NCTAMS LANT's mission? Which commands are your critical partners and how do you work with them?

A: Our mission is to provide the operational platform for information to U.S. forces and our coalition partners and deny it to the enemy. We do that by providing secure and reliable voice, messaging, video and data communications to surface, subsurface, air and ground forces operating worldwide.

We have a great team of 2,782 personnel across the NCTAMS LANT region which stretches from the Atlantic through the Arabian Gulf and includes 17 subordinate commands and 53 Base



CAPT. DANELLE BARRETT

Communications Offices that we use to accomplish this mission.

We have several critical partners that we work with including our Immediate Superiors In Command; Naval Network Warfare Command, operationally, and Fleet Cyber Command, administratively. We also work closely with SPAWAR (Space and Naval Warfare Systems Command) and Navy Cyber Forces Command on issues from equipment installations and casualties to training and readiness.

Operationally, we coordinate daily with the numbered fleet commanders, strike group N6s and joint partners to ensure that we are meeting their day-to-day Department of Defense (DoD) Global Information Grid (GIG) Operations or DGO (formerly known as network operations or NETOPS), communications requirements and to coordinate upcoming outages for maintenance and upgrades.

Additionally, we work aggressively to coordinate all our activity with the other NCTAMS and Naval Computer and Tele-

communications Stations (NCTSs) across the globe. DGO services know no geographic boundaries and a ship in the Arabian Gulf, for example, may be getting radio frequency and satellite connectivity via the satellite downlink facility in Germany, ultra high frequency voice support from NCTS Guam, Special Compartmented email and messaging from NCTAMS PAC, Internet Protocol services from NCTS Bahrain and homeport dial tone from NCTAMS LANT. We "failover" services between NCTAMS and the NCTSs all the time to ensure operational units maintain command and control.

It's important to always view our services across the entire enterprise and work solutions and recommendations closely with our DGO partners to ensure we are in lockstep.

Our most important partners though are the operational and fleet units and our shore-based customers. Our goal is to provide the best service possible and exceed their expectations. To do this, we have an active fleet engagement program; we send officers underway on all major fleet exercises and have a Sailor to Sea exchange program where we send our junior Sailors underway to get experience and act as liaisons back to the command.

We have a monthly newsletter we put out called *The Communicator* which provides advice for the fleet on common communications issues and informs them of changes and infrastructure upgrades and more.

Also, I personally visit the type commanders and every ship on the waterfront with my Operations Officers; we've done over 50 shipboard visits to date



with many more scheduled. We not only meet with the commanding officers and combat systems officers but also go down into "radio" to talk to the information systems technicians and get firsthand feedback about the service we provide. We've used this feedback to change processes at NCTAMS, such as our watchto-watch turnover process and how we ensure continuity in the troubleshooting process to improve service. Our motto is "Fleet First" — and we take that very seriously.

Q: In February, NCTAMS LANT replaced an antiquated electrical infrastructure with a modernized robust power distribution system that better supports the current capabilities of the facility and allows for future expansion. Has the uparade improved service to the fleet? Are any other improvements planned?

A: Yes, the upgrade has improved service to the fleet but not in a way that is necessarily obvious to them. It improved the reliability and availability of critical power at the NCTAMS LANT headquarters. Prior to the upgrade, we were unable to expand or add any more equipment as the power panels would not support it. Now we can continue to upgrade equipment and add capability. Also, there is far less likelihood of a catastrophic power failure that we would not be able to recover from for weeks which had been a constant source of concern prior to the upgrade when we were operating off 50-year-old infrastructure.

We have some other upgrades happening to our building over the rest of this year but the real improvements will come if a proposed MILCON (appropriation for new military construction) is approved for a new building. We are hoping that will be funded and built by 2016. It would be similar in size and scope to the new building recently built for NCTAMS Pacific in Hawaii.

"The pressure is really on both the officer and enlisted to keep current in this rapidly changing technologically dependent environment. New threats and challenges emerge daily, and we must create well-trained, adaptive, responsive thinkers to meet those and ensure the integrity of our networks and communications."

Q: NCTAMS LANT jobs are staffed by members of the Information Dominance Corps, otherwise known as the Navy's cyber warriors — the hot job of the moment; does it put a lot of pressure on your forces to have so much responsibility riding on their shoulders? Can you talk about the training and cross-training they receive?

A: All of our officers and most of our enlisted personnel are members of the IDC and it gives us a great opportunity to expand our knowledge; adding breadth and depth to our mastery of the information disciplines. Almost all of our officers are Information Professionals (restricted line, limited duty officers and warrant officers), with the exception of one supply officer and one electronics maintenance officer. Within the IDC, the IPs have a rigorous training program for working on their qualifications and to attend local schools like the Joint C4I Staff Officer and Operations Course at the Joint Forces Staff College (JFSC).

We also work to cross-train them in other IDC discipline areas, for example, we try to get as many of them as we can through the Joint Information Operations Planners Course at the JFSC to get them some cross IDC discipline exposure, and they must complete their Information Dominance Warfare Officer qualification if they don't have it prior to their assignment here. We open up our IP qualification training to all IP officers in the Hampton Roads area and have many who attend our weekly training sessions at NCTAMS LANT.

On the enlisted side, we have an aggressive program in place to get our folks Cyber Security Workforce (formerly known as Information Assurance Workforce) qualified. We offer classes here in Security Plus, Network Plus, and other Microsoft certifications, as well as running an Information Assurance Personnel Qualification Standard weeklong boot camp. We open these courses up to the fleet as well to fill seats we have open in each convening course. This certification along with the 2791/2790 conversion training is very important to keep our Sailors competitive in a time when Perform to Serve and other force shaping mechanisms will reduce opportunity to stay Navy.

Additionally, my Command Master Chief David Byrd runs a fantastic Enlisted Information Dominance Warfare quali-



OSCAR



Traditionally, every Navy activity adopts a command emblem for quick visual recognition. Possibly the most widely recognized and endearing emblem is NCTAMS LANT's "OSCAR." Oscar the Octopus depicts the dynamic environment of a Navy communicator.

In 1947, at the request of Navy Cmdr. W. A. Swanston, the Fifth Naval District Communication Officer, Walt Disney's artists conceived the design. Oscar was adopted as the command emblem for NCTAMS LANT's predecessor activity, the U.S. Navy Communication Station Norfolk, upon its establishment Nov. 7, 1950.

This insignia is intended to humorously convey the normal plight of a Navy communicator. When it was designed during the World War II era, Oscar's equipment

was "state-of-the-art," allowing a proficient Morse code operator to send 35 words per minute. While our communications technology and equipment have drastically changed, Oscar's expression still conveys NCTAMS LANT's philosophy of going the extra mile to provide its customers with the latest and best communications technology and services.

NCTAMS LANT personnel have come to feel a special attachment to Oscar over the years and display the emblem proudly.

The original 2-inch by 3-inch Disney artwork is displayed in NCTAMS LANT's quarterdeck area, and replicated throughout the world by current and former Navy communicators.

fication program and is making great progress in getting our IDC enlisted folks this important career milestone accomplished while at the command.

The pressure is really on both the officer and enlisted to keep current in this rapidly changing technologically dependent environment. New threats and challenges emerge daily, and we must create well-trained, adaptive, responsive thinkers to meet those and ensure the integrity of our networks and communications.

It's not enough just to train the officer and enlisted workforce on the technology specifics, we need to continue to train them to be operationally savvy, agile, innovative thinkers who keep an eye on new technology and look for potential military uses of it or threats it could pose.

Q: I noticed that you really push training and encourage junior officers and enlisted to think critically, share information and to write for defense journals. Can you talk about how you think this strategy improves personnel readiness and professional development?

A: I'm a big believer in sharing and publishing your ideas — just get the idea out there and someone else will take it and make it even better; frankly, that

is the best thing for the Navy. I encourage them to write about something they are passionate about, good or bad, but to always make a recommendation on what they think the outcome or solution should be.

I also want to teach them to think about their idea in the context of the enterprise and how the solution proposed can solve the problem once and solve it for many. Or to look at the future and make recommendations on problems that operators may not even know they have yet.

It's important to note that the recommendation doesn't have to be technology based, it could be a changed process or organizational structure by members of the IDC who are technology savvy [and] can see potential military solutions with emerging technology that others may not.

I've heard people say, "Well, he is really smart, he can poke holes in any theory." I don't consider that smart, I consider the person who makes the recommendations on a better way to do business and collaborating with shipmates to make that idea even stronger more valuable to the Navy. That's the person I want to work with. Building agile, strategic thinkers helps the person personally and the Navy as a whole. CHPS

NCTAMS LANT Mission

The mission of NCTAMS
LANT is to provide secure and reliable, classified and unclassified, voice, messaging, video and data, telecommunications to surface, subsurface, air and ground forces in support of Command, Control, Communications, Computers, and Intelligence (C4I) for real-world operations and exercises and to U.S. Naval, Joint and Coalition operating forces worldwide.

www.nctamslant.navy.mil

NCTAMS LANT SAILORS TRAIN WITH MSRON 2

Lt. Peter J. Beardsley

The Naval Computer and Telecommunications Area Master Station Atlantic is a shore-based telecommunications hub whose mission is to provide reliable, secure and non-secure voice, data and video platforms to the fleet. The communicators of Maritime Expeditionary Security Squadron Two (MSRON 2) work in a different environment and with different equipment than NCTAMS LANT Sailors. But NCTAMS LANT's goal is to be a deployable communications resource to MSRON 2.

Recently, four Sailors from NCTAMS LANT, Information Systems Technician Seamen (ITSN) Barrett Hamm, Marcus Ellis, Zachary Dickerson and Dalton McCabe, were given the opportunity to spend a week training with MSRON 2 to learn the capabilities and limitations of an expeditionary unit and expand their knowledge of Navy communications.

The first portion of the week was spent training with the "mast" portion of MSRON 2's communicators. In this segment of the training, NCTAMS LANT Sailors learned how to set up a field communications hub. They also learned how to operate the AN/USC-60 satellite terminal, which the Sailors of MSRON 2 use in an operational environment. Training included the set up of connections between the system and various multiplexers, enabling connectivity to Internet Protocol platforms.

During the second portion of the training, NCTAMS LANT personnel trained with the 'ops' portion of MSRON 2's communicators. NCTAMS LANT's Sailors assembled and ran cables for the AN/USC-67 suite. The suite was used for both data and voice services while running on a battery in the field.

Beyond operation and use of different types of mobile satellite communications suites, the Sailors of NCTAMS LANT had an opportunity to learn some of the tough challenges for an expeditionary communicator, such as the need to set up tents and security barriers and checkpoints.

Physical security for information systems is too easily taken for granted when operating on a military base in the continental United States, where much of the responsibility for physical security is left to base operations. This is not a luxury afforded to an expeditionary communicator.

The ultimate goal of the engagement was to enable personnel from each command to work together and, in the words of ITSN Hamm, "See and talk about what each other sees."

Sailors from each command were able to learn about the unique challenges and

troubleshooting capabilities and limitations each must face in their goal of providing an effective warfighting platform.

It was also a learning experience. In the words of ITSN Ellis, "I loved it. I got the chance to experience a different side of the IT rate and really learned a lot."

Lt. Peter Beardsley is a NCTAMSLANT Joint Fleet Telecommunications Operations Center (JFTOC) watch officer.

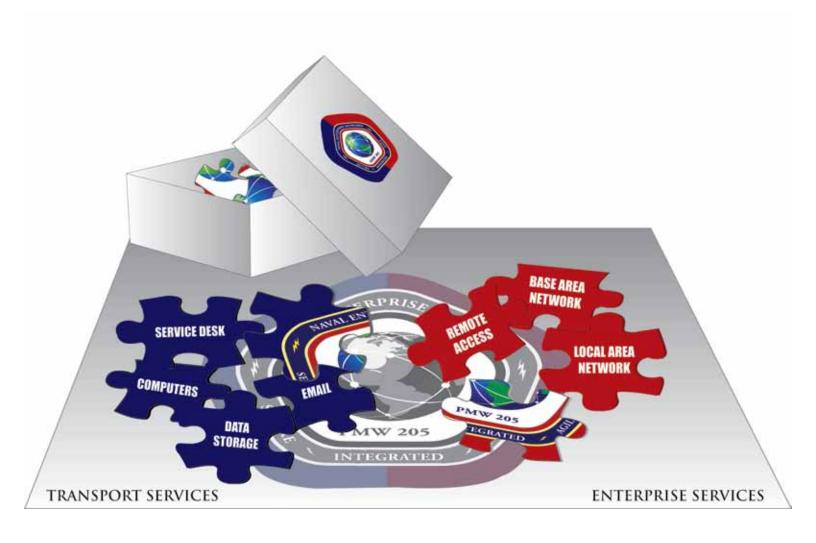




Naval Enterprise Networks releases 1,100-page NGEN request for proposal

Transport and enterprise services proposals due August 8

By Michelle Ku



The NGEN request for proposal outlines two possible contract awards, transport services and enterprise services. Within the two segments, network services are broken up into 38 individual pieces. The graphic at left shows a few of the 38 services.

fter more than two years of hard work, the Naval Enterprise Networks (NEN) Program Office released a 1,100-page transport and enterprise services request for proposal (RFP) that establishes the acquisition approach for the Next Generation Enterprise Network (NGEN), the next step in the evolution of the Department of the Navy's enterprise network.

Although the release of the RFP was a major milestone in its own right, the pace of work in the program office has increased and will only continue to ramp up as the August 8th proposal deadline approaches. At that point, the focus will switch from RFP preparation to source selection, contract award and the transition of the Navy Marine Corps Intranet (NMCI) services from the current provider to the winner or winners of the NGEN contract(s). The contract award is expected to be delivered by February 2013.

"Releasing the RFP is just the latest signpost in the path toward transitioning to NGEN," said Capt. Shawn P. Hendricks, NEN program manager. "Clearing the high standards set by the DON and the Department of Defense for the release of the RFP has been hard work. It's hard because it's important and it's meaningful, yet at the same time information technology is the most mundane thing that we buy in the DoD. But the work continues and the next hurdle is evaluating the proposals submitted by industry."

Individual Services

Some view NGEN as a completely new enterprise network, but it won't be. NGEN will provide all of the same services that are available under NMCI. The big difference is NGEN's acquisition approach that allows for the transition of the NMCI from a contractor-owned network to one that is fully govern-

ment-owned with increased government management and control. In addition to being government-owned, NGEN divides network services into individual pieces allowing for periodic competition that will decrease costs, while allowing for technological innovation. NGEN will also provide for more flexible and adaptable information technology (IT) network services.

With NGEN, the DON will know exactly how much each of the individual pieces that make up the enterprise network costs, Hendricks said. "With NMCI, we're paying a single price for everything. I cannot tell you what email costs because it's not broken down into that segment. Email is one service amongst many, such as help desk service and computer software, yet we pay one price and we get it all. We may have the most efficient help desk known to man and we might only be able to save \$1 there, but I don't know that because I don't know what it costs."

Think of the NMCI contract like a jigsaw puzzle, Hendricks said. On the cover of the box you have a picture of the puzzle, but you can't see the size or shapes of the puzzle pieces. Inside the box, you have a lot of pieces that need to be put together to match the cover on the box. The puzzle pieces represent the individual services of the network prior to the NMCI contract. The completed puzzle on the cover of the box represents the network post-NMCI contract.

"What we're trying to do with NGEN is show you where the seams are on the pieces so that as and when circumstances dictate, whether technology, security, cost, enterprise-wide solutions, DoD mandates, whatever it is, that we can take one of those pieces and we can replace it with another one, and we'll know exactly how to fit it in," Hendricks said.

When the full transition to the NGEN service providers is completed in April 2014, users should not notice a difference in the network, Hendricks said. "The computers on their desk will be the same, their email will be the same and their other network services will be the same. So whether it's the day before the transition or the day after, I hope they won't notice a thing."

Currently, NMCI connects more than 800,000 users utilizing 384,000 workstations at more than 3,000 shore-based locations throughout the United States, Hawaii and Japan. Not only is the NMCI the largest enterprise network in the Department of Defense (DoD), it is also the largest corporate intranet in the world second only to the Internet itself.

Contract Segments

The NGEN RFP outlines two possible contract awards, one for transport services and one for enterprise services. Within those two contract segments, network services are broken up into 38 individual pieces so that the network can be competed collectively or individually on a service or segment level as needed.

Transport services — the physical wires, routers and cables used to transport network services — make up one-third of the overall NGEN contract. Enterprise services — the security encryption, software, the NMCI Service Desk and data storage servers — make up the remaining two-thirds.

Together, the estimated value of the transport and enterprise services is between \$4.5 billion and \$5.4 billion, but ultimately the value of the one-year contract(s) with four one-year options will be driven by the competition and will be reflected in the bids.

The NGEN contract(s) will be awarded based on the Lowest Price Technically Acceptable (LPTA) source selection

As services transition from NMCI to the NGEN contractor, network services — operations, security protocols and email traffic to name a few — cannot stop for even one moment because everyone from a seaman to the Secretary of the Navy and a Marine Corps recruiter to the combatant commander of the U.S. Pacific Command depends on the same network services.

process, a standard which will provide the government with the best value according to the Federal Acquisition Regulation (FAR), Hendricks said. "Some people argue that LPTA means we will receive an inferior product, but that's not true. For a company to be considered for a contract, their bid must meet the technical requirements before we'll even look at their cost proposal."

The requirements in the NGEN RFP are for a commercially available service that more than one company is capable of delivering, Hendricks said. "There isn't an area that the DON could identify where we would be willing to pay more for so LPTA was deemed the best value approach for the government."

Industry Feedback

Since the May 9th RFP release, the program office has responded to more than 210 questions and comments submitted by the bidders. The program office has also continued to make adjustments based on industry feedback, having issued 13 amendments to the RFP as of July 12.

"The RFP is good," Hendricks said. "The paucity of comments and questions we received after it was released is a testament to the hundreds of thousands of hours of work that the team put into developing it."

The DON took a deliberate, methodical approach in developing the RFP through a series of "Industry Days," requests for information, acquisition concept document releases, draft RFP releases, the opening of technical data research facilities and opening a network operations center for industry tours. Along the way, industry was invited to ask questions and submit comments.

The dialogue with industry wasn't just an exercise for show, Hendricks said. "The comments from industry have shaped the RFP based on the services that industry indicated it could and could not provide."

For example, one of the initial requirements was that a company must have experience running a computer network of at least 100,000 computers to even be eligible to win the NGEN contract. Based on industry feedback and additional analysis by the NGEN technical and management teams, the requirement was lowered to a minimum of a 40,000-computer network. In doing so, the potential field of bidders was increased without sacrificing any technical or security requirements.

Another change that was made based on industry feedback was the number of hosted virtual desktop (HVD) seats, a cloud-like solution. The draft RFP initially included 7,500 seats, the number of seats participating in NMCI's limited deployment of HVD that is currently underway. Two companies commented that they wouldn't be able to drive down the price of the HVD seats if the number of those seats on contract was limited to 7,500.

After completing an analysis of the HVD requirement, we realized the companies were right, Hendricks said. "We increased the potential number of HVD machines to 119,000 NIPR and 15,000 SIPR. The RFP doesn't say that you have to do it, but it provides industry the flexibility to potentially drive down the price by hosting applications virtually."

Hendricks personally reviewed thousands of comments from industry and stakeholders, including those from the U.S. Pacific Command, a joint command of the Air Force, Army, Navy, Marine Corps and Coast Guard with 3,000 NMCI seats.

"There is no other request for proposal anywhere in government that has had as many people interested in what is said as this one," Hendricks said. "This affects every single Sailor, Marine and civilian in the Department of the Navy."

Throughout the development of the RFP, the No. 1 concern of the program office has been ensuring a smooth and seamless transition of network services.

The network is a vitally important part of the daily business and mission critical operations of the DON. As services transition from NMCI to the NGEN contractor, network services — operations, security protocols and email traffic to name a few — cannot stop for even one moment because everyone from a seaman to the Secretary of the Navy and a Marine Corps recruiter to the combatant commander of the U.S. Pacific Command depends on the same network services.

"I don't want the customer to be impacted by something we've done because in the end, it's about them," Hendricks said. "It's not about me. I can award a contract, I can save lots of money, but if it doesn't deliver efficiency, effectiveness and productivity to the users, it's worth nothing and it costs a lot so it's infinitely more expensive than it's worth. Ultimately, only time will tell, but we have done our best to ensure the DON gets the best value from the network." CHPS

Michelle Ku provides public affairs support to the NEN Program Office.

Naval Enterprise Networks (NEN) is part of the Department of the Navy's Program Executive Office for Enterprise Information Systems (PEO-EIS), which oversees a portfolio of enterprise-wide information technology programs designed to enable common business processes and provide standard IT capabilities to Sailors at sea, Marines in the field and their support systems.

Media Inquiries:
PEO EIS Public Affairs Office
PEOEIS_PublicAffairs@navy.mil
(703) 604-4380
www.public.navy.mil/spawar/
PEOEIS/Pages/default.aspx

Navy e-Learning Improves Efficiency of Learning Content Delivery

From Sea Warrior Program Office

more than 7,500 Navy e-Learning (NeL) courses available, Sailors around the world — and around the clock have come to depend on NeL to help advance their careers. Navy e-Learning is one of the largest Web-based training systems today, operating ashore and on ships and submarines at sea. Ensuring its dependability 365/24/7 is no small technical feat. For example, imagine every time you turned on your TV, it had to call one server for video, another server for audio, yet another for text, and then finally one for animated content. Next, your TV would compile all this content, and then finally display it real-time so you could enjoy the presentation. Technically speaking, that's dynamic content delivery.

The Navy had originally invested in dynamic content delivery to reduce the cost to maintain and update electronic training content, as well as to enable content discovery and reuse. When NeL launched in 2001, and operated on a smaller scale, dynamic content was technically manageable within a reasonable cost. However, as the NeL courseware library and number of users increased over the past 10 years, the supporting IT infrastructure also grew to ensure a quality experience for the user.

In other words, the technical and funding aspects associated with sustaining dynamic delivery were outpacing the benefits of that approach. As a result, the Sea Warrior Program (PEO-EIS PMW 240) and the Naval Education and Training Command (NETC) undertook an effort to convert all electronic training course content and data that were "dynamically" delivered from the Learning Content Management System (LCMS) into the Sharable Content Object Reference Model (SCORM) 2004 format for delivery by the Learning Management System (LMS). SCORM is a collection of technical standards that

defines how units of online training material need to be created so the content can "play" well in different Learning Management Systems and contexts.

"SCORM is mandated by Department of Defense Instruction 1322.26, and it's the best approach for Web-based e-learning courseware interoperability," said Hank Reeves, Navy e-Learning project director. "In simple terms, SCORM is like the DVD standard for distributing digital films. A DVDformatted movie plays on any video disc player, regardless of manufacturer. Having all e-learning content packaged in SCORM format reduces the cost of testing, hosting and managing content deployment," Reeves said.

"Our team converted or retired 1,209 training course programs. This represents nearly 20 percent of all courses within Navy e-Learning. A huge impact when you consider that last month we reached 3 million NeL course enrollments for this year," said Reeves.

The SCORM project was a large challenge for the NeL team and training content sponsors because the courses were originally developed using an LCMS software application that had some non-standard ways of authoring and delivering content. Although this application provided an automated means to export content to the SCORM format, the output still required NeL team members to manually correct



Personnel Specialist Seaman Terrence Oliver browses the Navy e-learning website while underway aboard the aircraft carrier USS Ronald Reagan (CVN 76). Navy E-Learning is an online tool Sailors can use ashore and underway to enhance their learning opportunities.

converted files and resolve the conversion problems. This close attention to detail resulted in training products that were often better than the original training content.

"The Navy e-Learning team did a great job resolving a variety of complex technical issues," said Reeves. "We worked closely with course sponsors to ensure that the converted content satisfied the requirements of our fleet learners. I am pleased with how well everyone on the team performed under time and budget constraints."

Much of the content converted by the NeL team was very "high profile, high usage" material including 28 Navy general military training courses and 146 Basic Engineering Common Core (BECC) courses. These courses were the most technically challenging for converting to SCORM because they used interactive Adobe Flash technology.

"Converting dynamic e-learning content to SCORM offers two significant business benefits to the Navy," said Roger White, PMW 240 assistant program manager for training and education. "First, it yields cost savings by allowing the elimination of 43 servers and software licenses that no longer need to be maintained and updated. Second, the SCORM conversion enables a smoother transition to the Enterprise Training Management Delivery System (ETMDS), the Navy's modernized Web-enabled e-learning delivery capability. Organizations developing content for distribution via ETMDS may use any authoring tool capable of producing SCORM-conformant content. This will allow us to more easily insert newer deployment technologies, such as application cloud technology, without having to redevelop the content," White said.

The Navy e-Learning Sharable Content Object Reference Model project involved collecting data to determine enrollment and completion metrics for courses eligible for conversion. Through a collaborative effort with 27 different sponsors, 749 courses were identified as candidates for retirement and removed from NeL. A valuable lesson learned from the dynamic content reduction project is the importance of regularly monitoring electronic course usage to keep the course library relevant and current. The project also contributed to improved NETC policy related to maintaining electronic training content.

About the Sea Warrior Program

The Sea Warrior Program (PMW 240) manages a complex portfolio of information technology (IT) systems to recruit, train, pay, promote, move, retire, and support Navy personnel and deliver Distance Support IT to the Fleet. The PMW 240 Program is part of the Navy Program Executive Office for Enterprise Information Systems (PEO-EIS) which develops, acquires, and deploys seamless enterprise-wide IT systems with full lifecycle support for the warfighter and business enterprise.

For more information, please contact the PMW 240 Public Affairs Office at 703-604-5400 or PMW240_PAO@navy.mil.

TO VISIT THE NAVY E-LEARNING CATALOG, GO TO THE NAVY Knowledge Online WEBSITE AT HTTPS:// WWW.NKO.NAVY.MIL AND AFTER LOGGING IN, CLICK ON "NAVY E-LEARNING ONLINE COURSES" UNDER THE "LEARNING" TAB ON THE TOP RIGHT OF THE PAGE.

FUELMASTER SYSTEM SUPPORTS OPENING OF NAVY'S FIRST ALTERNATIVE FUELING STATION IN HAWAII

By Deborah Gonzales

hen Naval Facilities Engineering Command (NAVFAC) Hawaii officially opened the first of three ethanol 85 (E85) fueling stations planned for the Navy's fleet of flex-fuel vehicles, it did so with support from Space and Naval Warfare Systems Center (SSC) Atlantic's Defense Logistics Agency (DLA) systems and applications sub-portfolio. The sub-portfolio's employees designed, engineered and installed the system that authorizes and tracks fuel transactions at the station.

The alternative fueling station, located at Joint Base Pearl Harbor-Hickam (JBPHH), officially opened March 22, 2012, enabling government gas cardholders and their government-owned flex-fuel vehicles to fill up with E85. Flex-fuel vehicles are alternative fuel vehicles designed to run on more than one type of fuel, commonly E85, an alternative fuel consisting of 85 percent plant-based ethanol blended with 15 percent gasoline. Ethanol is environmentally friendly, produces less carbon dioxide emissions, and helps reduce dependence on foreign oil.

SSC Atlantic's DLA systems and applications sub-portfolio engineers, delivers, and maintains systems that manage and track every drop of fuel issued to the military anywhere in the world. The sub-portfolio provides this capability for DLA Energy, a DLA field activity responsible for meeting the energy needs of the military services around the world. As the principal source of supply for fuels within the U.S. Armed Forces, DLA Energy provides support for contracting, distribution,



PEARL HARBOR (March 22, 2012) The U.S. Navy has opened the first E85 station at Joint Base Pearl Harbor-Hickam. The 10,000-gallon tank contains 85 percent plant-based ethanol blended with 15 percent gasoline which can be used in all flex-fuel vehicles. Two more Navy E85 stations are planned to open. Marine Corps Base, Hawaii has the only other E85 station in the state. U.S. Navy photo by Denise Emsley.

transportation and inventory control of bulk fuels. SSC Atlantic is responsible to DLA Energy for the design, installation, integration, and sustainment of information technology-based automated fuel handling equipment and systems at all 500-plus Department of Defense (DoD) fuel facilities worldwide, including 83 Navy and Marine Corps sites. Data from these automated systems are used to manage DoD fuel inventory and distribution worldwide, including fuel supplies for the Navy and Marine Corps.

NAVFAC Engineering Service Center awarded a contract to a firm to develop and construct the 10,000-gallon above ground alternative fueling station at JBPHH in 2010. The contractor broke ground in April 2011 and completed all mechanical and electrical work in July 2011. At that point, the sub-portfolio's phase IIB (PH2B) automated tank gauge replacement (ATGR) integrated product team (IPT), which installs and integrates automated fuel service station (AFSS) equipment and also standardizes, implements, and replaces automated tank gauging (ATG) equipment and alarms at DoD fuel storage and distribution activities, installed and integrated the FuelMaster system.

The installed FuelMaster is the DoD version of a commercial product manufactured by Syn-Tech Systems Inc. that manages the retail fuel mission by authorizing and tracking all fuel transactions through a combination of fixed hardware, firmware and software. Fixed fuel management unit pedestals are installed at each gas island. These units interface with all fuel pumps. Vehicles are provided with special electronic read/write keys or cards to enable the fuel dispensers. Vehicle identification, military unit, fuel type, and amount filled comprise some of the key data captured during each transaction. This data is then auto-loaded to a central software package that monitors all the

hardware devices. The software captures all sales information and allows for report generation and transmission of transaction data to the DLA baselevel accounting software for upload to the DLA Enterprise. DLA, owner of the E85 fuel, then bills the applicable military service unit for the fuel sales.

SSC Atlantic, through the DLA systems and applications sub-portfolio, is DLA's execution agent for design, engineering, installation and 24/7 sustainment of these systems at all DoD fuel facilities worldwide. Under the sustainment program, the sub-portfolio had already incorporated the new E85 fuel type into the system software, so no additional changes were required for installations at E85 fueling stations.

In a news article released March 24, 2012, by NAVFAC Hawaii on the Navy's official website, Navy.mil, Capt. John Coronado, commanding officer of NAV-FAC Hawaii said the addition of the E85 fueling station to the Navy's fueling options directly addresses the energy mandates set forth by the Secretary of the Navy and the President. Secretary of the Navy Ray Mabus has directed the Navy to reduce its consumption of petroleum by 50 percent before 2015, while the President's Executive Order 13514 calls for a 28 percent reduction in greenhouse gases, such as carbon dioxide, by 2020. Capt. Coronado noted there are more than 1,000 E85-capable vehicles at JBPHH that will be able to take advantage of this station and two others will be installed. SPAWAR was specifically cited in the article in a description of the timeline leading to the new station's opening in Hawaii.

As with all FuelMaster systems, SSC Atlantic's DLA systems and applications sub-portfolio will provide sustainment support for the system at the new E85 fueling station at JBPHH. Sub-portfolio teams will also install and maintain the system at the Navy's two other planned E85 fueling stations in Hawaii and at other Navy sites. This is one example of the numerous engineering services SSC Atlantic and its predecessor organizations have delivered to DLA since 1993.

This success demonstrates how the business and force support portfolio contributes to SSC Atlantic's mission to



The U.S. Navy first E85 station at Joint Base Pearl Harbor-Hickam. The installed FuelMaster is the DoD version of a commercial product manufactured by Syn-Tech Systems Inc. that manages the retail fuel mission by authorizing and tracking all fuel transactions through a combination of fixed hardware, firmware and software. The success of the FuelMaster installation demonstrates how the business and force support portfolio contributes to SSC Atlantic's mission to rapidly deliver and support solutions that enable information dominance for naval, joint, national and coalition warfighters.

rapidly deliver and support solutions that enable information dominance for naval, joint, national and coalition warfighters.

The business and force support portfolio manager Jackie Goff said, "DLA Energy is dedicated to providing continuous energy support to the warfighter, and our portfolio's products and services in support of this effort are part of the many ways we deliver on our commitment to make information technology count for the warfighter and the nation."

DLA systems and applications subportfolio lead Ralph Shealy said, "We are very honored to provide engineering services to DLA Energy and deliver capability that assists them in providing unparalleled fuel support to the warfighter and in managing the energy sources of the future." CHPS

Deborah Gonzales is a senior management analyst providing contractor support to the SSC Atlantic business and force support portfolio.

FOR MORE INFORMATION ABOUT SPAWAR, PLEASE GO TO WWW.SPAWAR.NAVY.MIL. OR FOLLOW SPAWAR ON FACEBOOK: WWW.FACEBOOK.COM/SPACEANDNAVALWARFARESYSTEMSCOMMAND OR TWITTER: TWITTER.COM/SPAWARHO.

World's Largest International Maritime Exercise Gets Underway

From U.S. Pacific Fleet Public Affairs

PEARL HARBOR, Hawaii (NNS) --Military leaders from 22 nations formally launched Rim of the Pacific Exercise (RIMPAC) 2012, July 2. RIMPAC is hosted biennially by U.S. Pacific Fleet in and around Hawaii.

U.S. and international speakers at the opening press conference included Adm. Cecil D. Haney, Commander of the U.S. Pacific Fleet; Vice Adm. Gerald R. Beaman, Commander of the U.S. Third Fleet; Japan Maritime Self Defense Force Rear Adm. Fumiyuki Kitagawa, Commander of Escort Flotilla Three; and Royal Canadian Navy Rear Adm. Ron Lloyd, Chief of Force Development.

"The theme of capable, adaptable partners resonates here in what is the world's largest international maritime exercise," Haney said.

Haney said 22 nations, 40 ships, six submarines, more than 200 aircraft and 25,000 people are participating in RIMPAC 2012. The exercise is designed to enhance the tactical capabilities of participating units in major aspects of maritime operations at sea. RIMPAC 2012 is the 23rd in the series, which began in 1971. It is the world's largest international maritime exercise.

RIMPAC, as well as the cooperation and interoperability it fosters, "is critical to ensure the safety of the sea lanes and security of the world's oceans," said Haney, who was flanked by representatives of the participating nations during a pierside press conference.

Haney noted that this year's RIMPAC is unique with a number of exercise firsts:

☐ The naval and air functional component commands in RIMPAC are being led by international partners;

☐ Includes a humanitarian assistance/ disaster relief (HA/DR) component;

☐ The U.S. Navy will demonstrate its "Great Green Fleet" approach with some surface warships and aircraft functioning on biofuel blends.

Beaman, said the HA/DR portion of the exercise is a five-day exercise that involves Hawaii disaster responders as well as more medical personnel than

have participated in past RIMPACs. He also highlighted the international leadership roles throughout the exercise.

"It is the first time in the RIMPAC series that the component commanders are led by other than U.S. leaders," said Beaman. "It's a sign of where we have come with this exercise and we're excited, each and every one of us to be here and to carry out RIMPAC 2012."

Kitagawa, of Japan, took a moment to recognize the growth in the international participation over previous years.

"I am very glad to welcome seven countries of new partners, and the opportunity for us to train together," said Kitagawa.

Kitagawa also noted that this is the 17th RIMPAC Japan is participating in, and he expressed his gratitude to all of the nations participating in RIMPAC for the assistance they provided to Japan in the wake of the March 2011 earthquake and tsunami.

"Continued participation in RIMPAC and regular deployments in the Pacific Rim also allows us to renew our focus on the region on a biennial basis," said Lloyd of Canada. He also thanked Hawaii for "what is truly first-class, world-class hospitality" that is being offered to all of the RIMPAC participants.

This year's exercise includes units or personnel from Australia, Canada, Chile, Colombia, France, India, Indonesia, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Peru, the Republic of Korea, the Republic of the Philippines, Russia, Singapore, Thailand, Tonga, the United Kingdom and the United States.

For more information, visit www.navy.mil, www. facebook.com/usnavy, or www.twitter.com/ usnavy.



PEARL HARBOR (July 2, 2012) Adm. Cecil Haney, commander of U.S. Pacific Fleet, addresses the media at the opening press conference announcing the start of Rim of the Pacific (RIMPAC) exercise 2012. Twenty-two nations, 42 ships, six submarines, more than 200 aircraft and 25,000 personnel are participating in RIMPAC from June 29 to Aug. 3, in and around the Hawaiian Islands. The world's largest international maritime exercise, RIMPAC provides a unique training opportunity that helps participants foster and sustain the cooperative relationships that are critical to ensuring the safety of sea lanes and security on the world's oceans. RIMPAC 2012 is the 23rd exercise in the series that began in 1971. Japan Maritime Self-Defense Force photo by Photographer PO1 Takahiro Ito.

Full-spectrum

Increasing the Dynamic of Spectrum Access

By Thomas Kidd

he final step in the dynamic federal agency spectrumaccess process within the United States is receiving a radio frequency assignment from the National Telecommunications and Information Administration. This notification from the assistant secretary of commerce for communications and information is required for federal spectrum-dependent systems to operate within the United States. The Code of Federal Regulations Title 47 Part 300, also known as the "Manual of Regulations and Procedures for Federal Radio Frequency Management," establishes this requirement for all spectrumdependent systems operated by the federal government.

In addition to federal regulatory compliance, a radio frequency assignment also provides operational value to federal agencies. A radio frequency assignment protects a stakeholder's rights to operate in the electromagnetic environment with an assurance of protection from harmful interference by other spectrum-dependent systems. Through the radio frequency assignment coordination and approval process, a spectrum stakeholder also assures other federal, non-federal and commercial systems similar protection from harmful interference by a new system. The radio frequency assignment process is a principal tenet of sharing spectrum access.

Another important value provided by a radio frequency assignment is a record of spectrum use. Radio frequency assignment requirements and data provide key metrics for equipment installation, acquisition, research and development. Interconnections among spectrum-dependent system databases and the government master file of radio frequency assignments enable federal agencies to accurately assess current and future spectrum needs. Centralized databases provide foundational information of how federal, non-federal and commercial stakeholders use their assigned spectrum in the electromagnetic environment. Through the application for radio frequency assignment, federal agencies continually demonstrate their requirement for spectrum-dependent operations and access to the electromagnetic environment. Balancing federal, state and local government access in the electromagnetic environment with commercial demand and revenue potential requires high fidelity data provided by radio frequency assignment records.

Acquiring a radio frequency assignment is an iterative process with periodic reassessment of spectrum requirements to incorporate changes in the electromagnetic environment. As a



result of these ongoing processes, radio frequency assignment databases represent the dynamic electromagnetic environment in continual transformation. The cycle time to obtain a radio frequency assignment is typically 100 days. However, the convergence of software defined radios, cognitive radio systems and the increasing burden of operating in congested electromagnetic environments are challenging spectrum managers to reduce radio frequency assignment cycle times from 100 days to less than one second.

The radio frequency assignment business process has been greatly enhanced through automation. However, the current radio frequency assignment business process remains both manual and people centric. Machines provide tools for people to make decisions, but very few decisions are automated. Computer networks enable collaboration. Spectrum management professionals use engineering and business process tools to assist whenever possible. However, electromagnetic spectrum



management remains dependent on people. Final decisions are reached by consensus among highly skilled professionals representing myriad stakeholders. The cumulative effects result in a dynamic process unable to meet the rapid reconfiguration requirements of emerging technology.

Traditional process improvement techniques are not designed to produce savings at the orders of magnitude needed to transform the radio frequency assignment process. Transforming the radio frequency assignment process from 100 days to less than one second requires several ambitious and transformational phases. Each phase will reinvent the radio frequency assignment business process while retaining the core values of preventing harmful interference, recording spectrum use and assuring regulatory compliance. Phase one will reduce radio frequency assignment processing time from 100 days to one day; phase two will reduce the time from one day to one minute; and phase three will reduce the time from one minute to less than one second. These phases roughly coincide with two or three orders of magnitude process improvements.

The first phase in transforming the radio frequency assignment business process, reducing cycle time from 100 days to one day, will be accomplished through automated decisions. Algorithms will be implemented into central processing systems to enable interference analysis and operational coordination via a machine-to-machine interface. Decisions will be made by approved algorithms with exceptions approved by stakeholder validation. Access will be available to central processing systems via user interfaces available and understandable to equipment operators, installers and maintainers. Regulatory compliance is assured by proxy through recognition that consensus among stakeholders provides sufficient oversight to authorize frequency use. Spectrum use will be recorded in a similar way to legacy business processes.

As a result of the first phase business transformation, the radio frequency assignment process will be accomplished with machine-to-machine communications; people will only engage to manage exceptions to the process. People will make decisions only when machine algorithms cannot. Beginning this process improvement before the end of 2013 will enable the next phase to begin by 2016.

The second phase scenario of transformation improves the radio frequency assignment business process from one day to approximately one minute. Protection from harmful interference is assured by stakeholders' algorithms implemented in local autonomous decision engines. Interactions are machine-to-machine. Radio frequency assignment decisions in the second phase will be made by spectrum-dependent systems interacting with radio frequency assignment decision engines residing in a cloud environment. Universally accepted decision-making algorithms accessible in the cloud will make all decisions. Systems will get information into and out of the cloud with limited or no human assistance. All processes will be autonomous and decisions will no longer require people to intervene. The radio frequency assignment business process will reside on the Internet, in local machines and on spectrumdependent devices. Spectrum use will be recorded in central repositories and regulatory compliance is assured through designation of standardized decision algorithms. This phase must begin in early 2017 and be completed within 48 months to ensure the final phase begins at the end of 2020.

The envisioned final phase of radio frequency assignment business transformation to improve the business process from one minute to less than one second will move the process onto the spectrum-dependent device. Systems will autonomously consider electromagnetic environmental knowledge and regulatory requirements to determine appropriate behavior. These spectrum-dependent systems will operate autonomously and ubiquitously from the current people-centric manual radio frequency assignment process. The radio frequency assignments made within these devices will have comparable authorities to operate and rights to interference protection as current radio frequency assignments. If phases one and two occur at roughly four-year intervals, the final phase of transformation could be in place by the end of 2024.

Technological advancements timelines and business processes improvement cycles do not occur simultaneously. Implementation of business process transformation improvements must accommodate fiscal year cycles and budgeting constraints, as well as cultural shifts and human resources concerns. Yet enabling dynamic access of the electromagnetic spectrum, while maintaining full value to the operator, must be accomplished. Initiating these improvements now, and maintaining a commitment to business transformation, will be critical to enable spectrum management processes and technological advances to coincide before 2025. CHPS

Thomas Kidd is the lead for strategic spectrum policy for the Department of the Navy.



New Integrated Product Team to Promote DON Mobility

By Dan DelGrosso and Mike Hernon

he Department of the Navy Enterprise Mobility Integrated Product Team charter was signed by Terry Halvorsen, DON Chief Information Officer, May 15, 2012. The charter defines the process that the enterprise will adopt to assess and enhance the DON's mobility capabilities using wireless and other remote connectivity options.

These capabilities provide significant support to a number of business transformation and efficiency efforts, such as cloud computing and telework (see "Enabling Business Transformation 'On the Go" in the April-June 2012 issue of CHIPS www.doncio.navy.mil/chips/ArticleDetails.aspx?ID=3895). The IPT is optimally positioned to address these efforts along with managing the unprecedented level of interest across the enterprise for new mobile devices and applications. With the IPT's establishment, the DON Wireless Working Group (DWWG,) which was the primary DON mobility forum since 2006, was disestablished.

Integration with DON Enterprise Governance

One of the more significant changes from the DWWG is that the IPT introduces a more formal relationship with DON enterprise information management/information technology governance. The IPT was established as the DON's designated advisory and action group reporting to the DON Information Enterprise Governance Board (IGB). The IGB was established in 2011 by the Under Secretary of the Navy as the most senior-level DON IT/cyberspace governance body, chaired by the DON CIO with membership including the deputy DON CIO Navy, deputy DON CIO Marine Corps, as well as other secretariat stakeholders.

Identify opportunities to improve delivery of government information, products and services through mobile technology.

IPT membership mirrors that of the IGB, but with representation at the GS-15/O6 level as opposed to the flag officer/senior executive service level. As with the IGB, the IPT will work in a collaborative manner, but unanimous consensus across the membership is not required for action. Additionally, representatives from the Defense Department, other military departments and other federal agencies will be invited to attend meetings to facilitate information sharing across the government including certification and accreditation documents that could reduce the time required to deploy solutions.

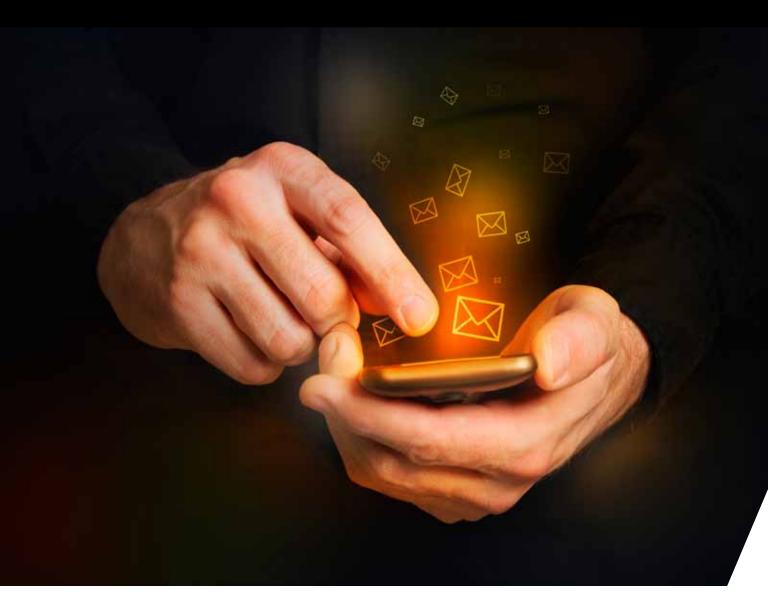
Responsibilities

The charter delineates a broad range of responsibilities for the IPT, including managing and overseeing pilots; conducting analyses and providing recommendations to the IGB; evaluating related federal and defense department policy; identifying efficiencies; and providing technical advice and review for significant DON acquisitions that are primarily or substantially mobility related. From a business transformation point of view, however, the most relevant tasking may be the direction from the charter to: "Identify opportunities to improve delivery of government information, products and services through mobile technology." As such, the IPT is poised to assist business transformation efforts either in response to a request for input or proactively if a new mobile capability or application is introduced that the IPT could refer to an ongoing business transformation project.

Coordination

Numerous use cases for new mobile devices and applications have been proposed across the DON. Most of these are directly or indirectly connected to a business transformation program. The use cases include business support systems, medical use, flight line, hangar deck and other afloat, airborne and ground tactical arenas. In each proposal, new ways of doing business in a more streamlined and cost-effective manner are highlighted.

All these use cases have merit — coordinating and prioritizing which proposals move forward is one of the IPT's primary tasks to avoid duplicative efforts. Many of these proposals also rely on devices or software not yet approved for use on DoD networks. The IPT can assist in working through the approval process or identifying alternative technologies that could deliver the same capability.



New Cellular Policy

In a related move, the DON CIO signed the "DON Policy on Mobile (Cellular) Services Cost Management" March 13, 2012, (www.doncio.navy.mil/PolicyView.aspx?ID=3813). The policy directs commands to take actions to better manage and control cellular costs related to devices such as BlackBerrys, cell phones and air cards. In particular, the policy addresses zerouse devices, devices reserved for continuity of operations, pool overutilization (buying too few minutes), pool underutilization (buying too many minutes), international roaming and the use of BlackBerry tethering over air cards. (See "New DON Mobile Contracts and Tools Drive Savings" in the January-March 2012 issue of CHIPS for more information (www.doncio.navy.mil/chips/ArticleDetails.aspx?ID=3576).

Analysis of actual use data across the DON indicates that significant amounts of money could be saved — up to 20 percent — by these actions without reducing the department's mobility capability. This is possible because much of the department's use of cellular devices has not been "optimized," in other words, buying only what is needed. Online portals provide telecommunications expense management (TEM) tools that provide commands the visibility and management

controls to meet the goals of the policy. User guides and training for the TEM tools are also available. Interested parties should contact Fleet Logistics Center, San Diego at cellmac@navy.mil or visit the center's website at https://www.navsup.navy.mil/navsup/ourteam/navsupgls/prod_serv/contracting/market_mgt for further information. Note that a Common Access Card is required.

While the mobile services cost management policy can be viewed primarily as supporting the ongoing IT efficiency efforts, it is also a critical part of enhancing the department's mobility capability. With tighter management of the department's cellular expenses, the DON could actually expand its mobile capabilities at less cost. The enterprise mobility IPT will also use the TEM tools to monitor progress and compliance with the policy. A copy of the enterprise mobility IPT charter is available on the DON CIO website at www.doncio.navy.mil/PolicyView. aspx?ID=3999. CHPS

Dan DelGrosso is the director of naval networks and enterprise services, Department of the Navy Chief Information Officer (DON CIO). Mike Hernon is the former chief information officer for the city of Boston. He supports the DON CIO in telecommunications and wireless strategy and policy.

Q&A WITH CAPT. SUSAN K. CERVOSKY COMMANDING OFFICER, CENTER FOR INFORMATION DOMINANCE

Capt. Susan K. Cervosky was selected for lateral transfer to the Information Warfare community in 2003 and was reassigned to Naval Network Warfare Command where she worked computer network defense initiatives. In May 2005, she reported as executive officer to the Navy Cyber Defense Operations Command (NCDOC).

She successfully led the command through unprecedented growth and mission accomplishment, culminating in NCDOC being awarded the prestigious Meritorious Unit Commendation. She transferred to Carrier Strike Group 12 in November of 2007 and immediately assumed the duties and responsibilities as the Enterprise Strike Group's Information Warfare Commander (IWC).

Next, she was the executive assistant to the Commander, Naval Network Warfare Command and most recently served as the Joint Forces Command J2 Chief of Staff from June 2010 until September 2011 prior to reporting to the Center for Information Dominance.

Cerovsky became commanding officer of CID in October 2011.

The Center for Information Dominance, based at Corry Station, in Pensacola, Fla., is the Navy's learning center that leads, manages and delivers Navy and joint force training in information operations, information warfare, information technology, cryptology and intelligence.

The CID domain comprises nearly 1,300 military, civilian and contracted personnel; CID oversees the development and administration of more than 223 courses at four commands, two



CAPT. SUSAN K. CERVOSKY

detachments and 16 learning sites throughout the United States and in Japan. CID provides training for approximately 24,000 members of the U.S. Armed Services and allied forces each year.

Q: You've been the commanding officer of CID since October 2011 — what is your overall impression of the job?

A: Exhilarating. From my years as a General Unrestricted Line Officer with subspecialty codes in several IDC disciplines and later on as an information warfare officer, I find myself very fortunate to be in command of a great organization like CID. The well-trained, professional, and diverse workforce continues to advance the strategy of making information dominance its main battery. The entire CID domain in collaboration with OPNAV, TYCOMs (type commanders) and fleet commanders and SMEs (subject matter experts) continues to drive the devel-

opment of the career-long progression from apprentice level basic knowledge and skills up to a mastery level capable of managing the IDC enterprise as a whole.

I am very proud and excited about the advances being made every day to train our total force internal to the IDC and external in associated services, communities and ratings to be highly skilled, agile, creative, adaptive information-centric professionals and warfare specialists, delivering a core warfighting capability to the joint force.

Q: The mission of the Center for Information Dominance is "to deliver full spectrum Cyber Information Warfare, and Intelligence Training to achieve decision superiority." Can you explain what this means?

A: The entire domain works in concert to create and deliver training and education to the IDC and the joint workforce ensuring they possess the knowledge, skills and abilities to operationalize cyber and make information a main battery. In doing so, the Navy advances its competitive edge and operational advantage.

Q: What sort of skills or background would a person need if they were thinking of becoming a cryptologic technician (CT), information systems technician (IT) or intelligence specialist (IS)?

A: For someone interested in joining the Navy, I believe it is less about your current skills or your background and more about what are your hobbies,



interests, dreams and goals. Where do you see yourself in one, five, 10, 20, years?

Assuming an individual has done their research, used the life 'ops' tool on the Navy.com website, talked with a recruiter, and meets entrance criteria for the specific rating they are pursuing, the Navy, and specifically the IDC, will provide Sailors graduating from RTC (Recruit Training Command) entry level technical training in an 'A' school and, in some cases, intermediate and advance level 'C' schools. It all depends on the career chosen; however a CT, IT or an IS will definitely be provided specialized training in computers, electronics, math and science to gain the knowledge, skills [and] abilities required to excel in their specialty and within the IDC over an entire career.

Q: Approximately how many students (officers and enlisted) are trained at CID annually?

A: As we continue to operationalize cyber our student throughput numbers continue to grow: in 2012, we expect to train 24,000 students. The number may rise with an increase in production e.g., recruitment and rate conversion or in the development of new courses to meet fleet and national requirements.

Q: CID is headquartered at Corry Station in Pensacola, Fla., but the domain is large. Can you elaborate on what rates and curriculum fall under CID?

A: With the merger of the Center for Naval Intelligence into CID, the center

is now responsible for the individual level training and education of the intelligence, information professional (IP) and information warfare (IW) officer communities and associated enlisted rates to include: intelligence specialist (IS); information systems technician (IT); information systems technician submarines (ITS); cryptologic technician networks (CTN); cryptologic technician interpretive (CTI); cryptologic technician maintenance (CTM); cryptologic technician technical (CTT); and cryptologic technician collection (CTR).

The CID domain consists of the Navy and Marine Corps Intelligence Training Center (NMITC), Fleet Intelligence Training Center (FITC), CID Unit Corry Station and CID Unit Monterey.

In addition to these four commands. CID includes 16 learning sites and two detachments worldwide. We conduct both Navy and joint (CID is the executive agent for National Security Agency courses) entry-level, intermediate and advanced individual level training in major fleet concentration areas, and advanced individual level training in major fleet concentration areas and National Security Agency sites; including learning sites in Yokosuka, Japan; Kunia, Hawaii; Pearl Harbor, Hawaii; Bangor, Wash.; Everett, Wash.; San Diego; Goodfellow (San Angelo), Texas; Medina, Texas; Fort Gordon, Ga.; Mayport, Fla.; Jacksonville, Fla.; Kings Bay, Ga.; Norfolk, Va.; Dam Neck, Va.; Fort Meade, Md.; and Groton, Conn.

Community and rating — specific, specialized trained coupled with completion of a PQS (personnel qualifica-

tion standards) compromised of both core modules common across the IDC and community-specific modules provide the foundation for the follow-on training and education.

Q: What does the merger of Center for Naval Intelligence (CNI) and CID mean for CID; for the Navy?

A: The merger of CNI and CID is a natural evolution to the profound changes that then-Chief of Naval Operations Adm. Gary Roughhead made in October 2009 and the continued changes that CNO Adm. Jonathan W. Greenert is making today.

As CID reaches full operational capability, from realignment initiatives of the merger, more advances in providing end-to-end training and professional development of personnel in information-centric disciplines will occur. Each member of the warfighting team will better understand how their position interrelates with the other information-intensive disciplines and when brought together creates a cohesive corps for information analysis, dissemination and warfighting capability.

No one can argue the value of the interdependency of the operational intelligence cycle and accurate weather prediction on the electromagnetic spectrum in exponentially increasing the value of our counterintelligence, surveillance and reconnaissance (ISR) operations, electronic warfare and other effects. Additionally, cyber defense is truly only achievable if these threats and vulnerabilities are known and eliminated.



Q: What is the significance of the IDC and do you think it will change the way CID operates?

A: In October 2009, Adm. Roughead announced 'The office of the Chief of Naval Operations must be organized to achieve the integration and innovation necessary for warfighting dominance across the full spectrum of operations at sea, under sea, in the air, in the littorals, and in the cyberspace and information domains.' To accomplish this, we began evolving information capabilities from 20th century supporting functions to a main battery of 21st century American seapower.

The OPNAV staff reorganized and created the Deputy Chief of Naval Operations for Information Dominance (N2/N6), and Fleet Cyber two fundamental principles of war — 'Economy of Force' and 'Unity of Command' — in dominating information both offensively and defensively. We are exploring alternatives like battle labs and holistic team trainers to create capstone events and environments to support the adage: train as we fight. The IDC Mid-Career Course and the Information Dominance Senior Leadership Seminar are also two examples of intercommunity professional development initiatives.

Q: Technology is changing so quickly, how does the Navy update its training to keep pace?

A: We conduct what is called a Human Performance Requirements Review. A HPRR is a process designed to revalidate individual training requirefrequently. Each Learning Center has established a centralized forum and data repository in support of scheduled HPRRs, which is located on Navy Knowledge Online (NKO: https://wwwa.nko.navy.mil). From this location, all interested parties can access the information required to begin updating their training.

Q: What role do you think CID will play in the future for the Navy?

A: The demand signal for a well-trained certified and professionally developed IDC workforce will remain steady. Joint and fleet requirements will increase as we continue to accomplish the CNO's 'Sailing Directions' and vision to operationalize cyberspace with capabilities that span the electromagnetic spectrum. As the Navy

"Information dominance begets decision superiority for our commanders and our operating forces. At CID, we believe in the strength of the IDC and recognize how the IDC exemplifies two fundamental principles of war — 'Economy of Force' and 'Unity of Command' — in dominating information both offensively and defensively."

Command/10th Fleet stood up; both of these actions better positioned the Navy to revolutionize the Navy's warfighting capability. During the same time, Adm. Roughead created the Information Dominance Corps compromised of intelligence, information technology, information warfare, oceanography and space cadre personnel. I recall thinking this exemplifies a total force construct and as IWC for CCSG 12 (Carrier Strike Group 12), I was working the same path for our strike group to bring together each unique position, serving a special purpose into one cohesive team to enhance each position, and unite our efforts to make a stronger team working toward a common mission of providing superior information and a unique warfighting capability.

Information dominance begets decision superiority for our commanders and our operating forces. At CID, we believe in the strength of the IDC and recognize how the IDC exemplifies

ments and or identify new training requirements as they apply to a rate, grade, community, course, systems configuration, or fleet operating procedure. The HPRR process provides stakeholders an opportunity to review and address existing training, identify redundant or unnecessary training, and ensure proper alignment of training based on new or revised requirements.

Q: How often do you perform HPRRs and what happens to all the data created during the HPRR?

A: HPRRs can be performed on either an individual course of instruction, training pipeline, or a group of courses to support a rating, Navy Enlisted Classification Code (NEC) or platform. A HPRR will be conducted on all Learning Center (LC) Courses of Instruction (COI) within a 36-month cycle, unless a triggered event occurs that requires one be conducted more

evolves doctrine, technology, systems and organizations to remain the preeminent maritime force so will CID as our diverse workforce throughout the domain develop new and innovative ways to train the total force on the skills required to provide superior awareness and control when and where we need it. CHPS

Capt. Cerovsky was interviewed in late June by Gary Nichols, public affairs officer for the Center for Information Dominance.

FOR MORE INFORMATION ABOUT CID, GO TO: HTTPS://www.
NETC.NAVY.MIL/CENTERS/
CENINFODOM/.

The MQ-4C "Triton" BAMS UAS will provide persistent maritime and littoral intelligence, surveillance and reconnaissance data collection and dissemination capability to fleet and combatant commanders.



The Navy's MQ-4C Triton

From the Office of the Deputy Chief of Naval Operations for Information Dominance (N2/N6)

The MQ-4C Broad Area Maritime Surveillance (BAMS) Unmanned Aircraft System (UAS) is a key component of the Navy's future Maritime Patrol and Reconnaissance Force. Its persistent sensor dwell, combined with networked sensors, will enable it to effectively meet ISR requirements in support of the Navy's Maritime Strategy. The MQ-4C BAMS UAS will support a wide range of military operations such as maritime surveillance, intelligence preparation of the operational environment, battle damage assessment, and targeting for maritime and littoral strike. The processing, exploitation and dissemination architecture will allow tactical level data analysis in real-time at shore-based mission control sites connected to the aircraft, as well as additional intelligence exploitation conducted at shore-based analysis sites, aircraft carriers and other ships in the sea base. The MQ-4C BAMS UAS will enhance battlespace awareness, shortening the sensor-to-shooter kill chain for joint forces and fleet commanders.

A single MQ-4C BAMS UAS orbit consists of four aircraft, a Mission Control System (with an embedded Mission System Trainer), Launch and Recovery Element and associated communication and maintenance support equipment. The aircraft will launch from OCONUS and CONUS Forward Operating Bases (FOB) and mission control will be executed from CONUS-based Main Operating Bases (MOB) once airborne. BAMS will provide near worldwide coverage through a network of airborne orbits operating 24 hours a day, seven days a week.

BAMS operations are being shaped by lessons learned from ongoing BAMS Demonstration (BAMS-D) missions in the Fifth Fleet area of responsibility. BAMS-D is a modified Air Force RQ-4A Global Hawk airframe, which will fly for Naval Forces U.S. Central Command/Fifth Fleet until the first BAMS orbit is established in late 2015. The BAMS airframe adds anti-icing, upgraded wings, 360-degree sensor coverage to Global Hawk and BAMS-D. It will be a highly capable multi-intelligence platform, combining electrooptical, infrared, radar, automatic identification system and electronic warfare sensors to provide enhanced detection, classification, tracking, and identification of maritime targets. A communications relay capability to provide assured communications in antiaccess/area denial scenarios is also envisioned for the future.

The MQ-4C BAMS UAS is manufactured and assembled at the Northrop Grumman Corp. (NGC) Moss Point, Miss., and NGC Palmdale, Calif., facilities. First aircraft rollout occurred June 14, 2012, with first flight planned for later in the year. Current program schedule and proposed aircraft procurement rates support an Initial Operational Capability (IOC) in December 2015 and Full Operational Capability (FOC) in 2020. CHPS

Fast Facts

- MQ-4C BAMS UAS will provide persistent maritime and littoral ISR to fleet commanders.
- MQ-4C BAMS UAS will enhance battlespace awareness and shorten the sensor-to-shooter kill chain for joint forces and fleet
- MQ-4C BAMS UAS will achieve IOC in December 2015.
- MQ-4C BAMS UAS leverages previous investments in the NGC Global Hawk Block 20 modified to meet the Navy's maritime
- BAMS will launch from FOBs and will be controlled from MOBs.
- At FOC, multiple orbits will be established supporting Navy fleet commanders.

CAPOSSO – Improving Civil Affairs Planning and Execution in the USAFRICOM AOR

By Sharon Anderson

A lack of critical civil information in remote areas on the African continent can cause myriad unintended consequences for senior decision makers at U.S. Africa Command. The United States devotes significant resources to civil affairs efforts globally, but what happens when the best of intentions to improve the quality of life for a disadvantaged population doesn't have the desired or optimal outcome? That's where CAPOSSO comes into play, CAPOSSO, or Civil Affairs Planning Operations in Steady State Operations, is a Joint Concept Development and Experimentation project sponsored by the Joint Staff J7.

U.S. Africa Command submitted the project to improve strategic engagement in its area of operations explained Margery "Kim" Frisby, an analyst in the Joint Staff's Joint Development Solution Evaluation Deputy Director for Joint and Coalition Warfighting office located in Suffolk, Virginia.

"U.S. AFRICOM has a population-centric mission, they are not doing kinetic targeting they are doing engagement strategy, engagement systems analysis, to get non-kinetic effects. They were having a difficult time getting the civil domain information, what we sometimes call 'green' and 'white' information, from the tactical level at the Joint Special Operations Task Force Trans-Sahara (JSOTF-TS) and the Combined Joint Task Force - Horn of Africa (CJTF-HOA) to try to get the information available to the AFRICOM headquarters staff, particularly its planning processes. That was the original basis of the project," Frisby said.

Since the disestablishment of U.S. Joint Forces Command in August 2011, the Joint Staff J7 picked up the experimentation formerly conducted by JFCOM's Joint Concept Development and Experimentation Directorate (J9), and the Joint Staff's J7 team is very excited about the CAPOSSO project, Frisby said.

The solutions architecture for the project is based on a premise initially strategized by then-Maj. Gen. Michael Flynn



DAMERJOG, Djibouti (June 20, 2012) – A Djiboutian pharmacist dispenses medicine to local villagers during a Medical Civic Action Program June 20. The Djiboutian patients were treated by a Djiboutian medical provider while Americans assisted with treatment and prescribing medications. U.S. soldiers with Combined Joint Task Force – Horn of Africa helped facilitate the program as part of CJTF-HOA's mission to build partnerships with nations in East Africa. U.S. Air Force photo by Staff Sgt. Andrew Caya.

when he served as Deputy Chief of Staff, Intelligence (CJ2), for the International Security Assistance Force in Afghanistan to defeat the counterinsurgency. In his pivotal paper written for the Center for a New American Security, "Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan" (http://www.cnas.org/files/documents/publications/AfghanIntel_Flynn_Jan2010_code507_voices.pdf), Flynn defined processes and the concept of analyzing unclassified information through fusion cells to improve intelligence collection and analysis, Frisby explained.

"I don't know if you have read the 'Fixing Intel' piece — or what we call the Flynn Indictment — that Flynn wrote when he was in Afghanistan and Iraq. The premise of his analysis is that the intel community had a habitual 'tendency to overemphasize detailed information about the enemy at the expense of the political, economic and

cultural environment that supports it.' Because civil affairs professionals are key members of Provincial Reconstruction Teams (PRTs) and other stability operations, they observed a lot of things happening on the ground as they built wells or developed power stations or whatever they were doing to help in reconstruction and stability efforts. Early in the war, some of that information never got the proper attention, and was never reported up, but what they saw became key to the counterinsurgency (COIN) strategy because they were able to observe things that the regular troops didn't because of what they were doing required close contact with the local population," Frisby said.

"In Fixing Intel, Flynn talks about how the information flow needs to be reversed from the traditional 'top-down' approach. In his paper, Flynn writes, 'The soldier or development worker on the ground is usually the person best

informed about the environment and the enemy," Frisby concluded. "This means that everyone, particularly civil affairs professionals, has a role in Joint Intelligence Preparation of the Operational Environment (JIPOE)."

Doctrinally, civil-military operations (CMO) staff and civil affairs (CA) representatives are supposed to provide expert advice and assistance to the JIPOE coordination cell by evaluating the areas, structures, capabilities, organizations, people and events of the operational environment. They also are the main advisers on rule of law, economic stability, governance, public health and welfare, infrastructure, and public education and information. Finally, CMO and CA experts assist in obtaining support for the JIPOE effort from the host nation (HN), intergovernmental organizations (IGOs), nongovernmental organizations (NGOs) and the private sector.

"In population-centric mission areas, like AFRICOM with its diverse national and cultural environment, civil domain information is essential to ensure decision-quality information reaches the commander. So that became the nexus of the project. Then we wanted to focus on what has been very successful in the Iraq and Afghanistan AOR, the fusion center, the fusion cell concept to bring together all the functional people in one place so they can do an analysis and determine what information is the most important to whatever the mission plan

is. So we are really focused on standing up what is called a Joint Civil Information Fusion Cell, or JCIFC, as the primary solution in the CAPOSSO project so that AFRICOM can implement an analysis strategy that can help inform that nonkinetic or engagement strategy," Frisby

The composition of civil affairs teams is determined by the combatant commander's request for forces. Whatever their mission is will determine the kind of training teams receive. The CAPOSSO project will also be a catalyst to improve civil affairs training by establishing a standard course on the Joint Knowledge Online (JKO) enterprise training system, Frisby said.

"Right now, part of the problem is as each rotational unit prepares to go into the AOR, they do their own predeployment training that augments the CA basic training they get, but it is not standardized. So part of the deliverables for this project is to standardize those tactics, techniques, and procedures (TTPs), and then develop a JKO course that provides the joint umbrella piece for standardizing that training, especially when it comes to civil affairs reporting. Right now there is no joint, standard reporting format, and we want that rotational unit to leave that data there for the next rotational unit coming in instead of taking it with them. That, of course, leaves a training, and really an understanding, gap that we are hoping

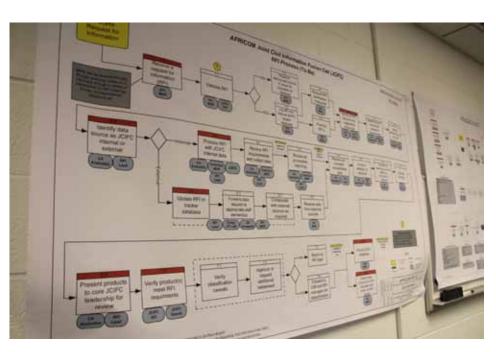
the project can help resolve," Frisby said.

Navy Lt. Geoff Weber, an information dominance officer from MCAST (http:// www.mcast.navy.mil/), the Maritime Civil Affairs and Security Training Command, said that training from a joint curriculum would improve training for the maritime civil affairs community. MCAST Command was formed in 2009 from the merger of the former Maritime Civil Affairs Group and Expeditionary Training Command, under the guidance of Navy **Expeditionary Combat Command and is** homeported onboard Dam Neck Annex, in Virginia Beach, Virginia.

"MCAST is the Navy component of the joint civil affairs community; kind of the new kids on the block. We have largely modeled our training after what the Army has done so successfully for many years; however, we add that maritime flavor to it. When Kim had mentioned that CAPOSSO is looking at possibly establishing Joint Knowledge Online, JKO training, of course, our command is very interested in that, we don't believe in recreating the wheel... But even more importantly, CAPOSSO is going to make our teams downrange considerably more mission effective because they do not currently have the information required to make the best decisions. They do what they can. Much of that information is not sitting in a global repository and is passed from team to team which is simply unsatisfactory. So the CAPOSSO is looking at what

Civil Affairs describes the activities that establish, maintain or influence relations between U.S. forces and foreign civil authorities and civilian populations to facilitate U.S. military operations.

Attendees at the tabletop experiment used an U.S. Africa Command architecture design for a request for information process that allows commanders to document and analyze the step-by-step sequence for requesting civil domain information from ground units in an area of operation. The tabletop experiment was held in May at Maritime Civil Affairs & Security Training, Dam Neck Annex, Virginia Beach, Va. Photo by Sgt. 1st Class Andy Yoshimura.



are the standard [report] formats and basically improving and documenting our processes to dominate, it's kind of a buzzword, but really to support 'decision superiority," Weber said.

Although the Navy Lessons Learned database, as well as JLLIS, the Joint Lessons Learned Information System, can assist in planning a civil affairs mission, often teams need more detailed information, Weber explained.

"We often look for very specific tactical data regarding civil infrastructure [the] benchmarks of civil affairs forces. Our forces navigate the operational environment to confirm the status of a number of U.S. government projects in foreign nations, perhaps at the request of USAID or the State Department, and then make recommendations on future engagements to create a desired effect. There have been some collaboration efforts that have moved us along this information sharing processes, one of which was an Office of Secretary of Defense (OSD) joint test and evaluation for Joint Civil Information Management (J-CIM)."

The Special Operations Command (SOCOM)-led J-CIM test, which ended in 2011, organized its efforts around identifying the joint TTPs necessary to standardize the collection, consolidation and sharing of civil information in the field.

"The CAPOSSO project has taken the outputs from the J-CIM test to assist in assessing the needs of disadvantaged populations, but first and foremost what needs to be established are some objective measures for those TTPs to determine the effectiveness of the operation through proper analysis of structured data," Weber explained.

"We never had a place to document this before. Certainly, there have been a myriad of reports attempting to document the effects, but we need a structured way of reporting, for example, to assign a geospatial reference to a particular project and a particular time to facilitate temporal analysis — that hasn't happened. I have been beating a drum on this for a while; we require an authoritative, globally accessible and structured repository of this information so when my team leaves and another one comes in, and we may not be relieved by another Navy team, it may be an Army team that is following us into theater, they can reach into this source of information instead of jumping through hoops to request data we retain on an external hard drive that no one else has access to — that's just unsat," Weber said.

Civil affairs teams usually partner with the U.S. State Department, the United States Agency for International Development (USAID), local governments and nongovernmental organizations.

"Obviously, we prefer to share information, but to do so effectively requires good formatting and network bridges. I think sharing information with them is an end state within the DoD and the U.S. government that we seek to attain. We are working toward it, but we are far from it," Weber said.

"Inherent to the problem is working with an enormous amount of unstructured data and turning it into meaningful information. We like to say we are data rich and information poor, otherwise known as D-R-I-P or DRIP. The data is there, but until we have codified and agreed upon processes, reports and databases, we are not dominating the information. From an MCAST perspective, warfighters are very excited about CAPOSSO to make all our operations considerably more effective," Weber said.

But building a global repository is not an immediate goal of the project.

"We are trying not to go directly to the technical solution right away," said Frisby, "we are trying to do the non-materiel requirements up-front. The main thrust is, and one thing that became very successful in the AOR, is a concerted effort to do that whole of government approach by starting with trying to fuse the J-codes in the AOR, to put the information in one place, give them the same information sharing tools so they have the same information, can analyze it, and understand the consequences of other ongoing missions across the AOR, otherwise known as fusion.

"This is going back to Flynn, he said everyone should be able to provide intel with some analysis in 'Fixing Intel.' He most recently wrote: 'Integrating Intelligence and Information, Ten Points for the Commander,' (http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20120229_art005.pdf), in which the first precept is: 'learn about and build fusion cells,"' Frisby said.

Simply put, according to Flynn, fusion

is about focusing intelligence and information collections systems, and about the speed of responding to the task, precision in addressing the problem with the best available capability, and understanding what the expected outcomes should be.

"The idea of fusion cells and centers started within DoD," Frisby said, "but the departments of Justice and Homeland Security have actually codified it; we have not done a good job putting into doctrine. I see the effects of CAPOSSO going beyond AFRICOM and the civil affairs realm. When you have a small success like this [CAPOSSO] you can build on it: standing up fusion cells across other combatant commands. AFRICOM is not just going to look at the results of the experiment as findings and recommendations; AFRICOM is going to integrate this fusion cell within its headquarters structure, to complement a Fusion Center that its J3 has stood up this month.

"Fusion started in the Special Operations Command in the last 10 years; they had to figure this out to defeat the counterinsurgency. SOCOM is the joint proponent for civil affairs operations... We want to get these lessons learned codified and get them working for us and make them part of doctrine. The exciting aspect of the Joint Staff J7 now is that it has the joint lessons learned, joint doctrine and joint training integrated together. The disestablishment of JFCOM became a forcing function to combine these functions together so they can collaboratively improve joint force development," Frisby said.

The CAPOSSO architecture is the first of its kind in creating a step-by-step process in developing an organizational framework for a fusion cell or fusion center operations for civil affairs activities. The design makes it easier for information to inform intelligence to be properly analyzed and readily available. Information will not get lost as it is reported up to the highest level because it will be documented in a standardized process and format, making it easier for intelligence analysts to have comprehensive feedback from troops on the ground.

"Fusion started in Iraq in 2005 with the primary purpose of taking all the disparate information from the battlespace and fusing it all together — the key

groups pulling information from Special Operations Forces, conventional forces, black and white SOF, and bringing in the interagency and getting them working together and sharing that information," said Michael Henry, irregular warfare architect in the Joint Staff J6 Deputy Director C2I Capability Development office in Norfolk.

"It wasn't done before: no one knew what the other commanders were doing in other geographic areas of the battlespace even after a big operation, even with the targeting information. Gen. (Michael) Flynn went to Afghanistan set up the fusion cells based on geography, and he said to keep it unclassified and make it as sharable as you can. He established the information in one repository, no matter where it came from, classified at the appropriate level that then could be fused into lethal targeting as well. When he started having successes he then brought in all the battlefield owners together so they could understand the dynamics of the different cultures, different tribes, [and] their needs, whether they needed a well or a road, and the economics in the region. Do they really want to target something or do they just need jobs," Henry said.

But for AFRICOM, information integration isn't about targeting individuals — it is about fusing all the AFRICOM processes from all the J-codes into a fusion center and making the information flow, Henry explained.

"It had to be low cost, using existing manpower, existing expertise to build those centers of excellence and tied into their processes so you wouldn't break anything, and using tools they already had so we had greater buy-in. We haven't had any negative feedback," Henry said.

"It has been such an enthusiastic group, civil affairs is a small community, one with a shallow gene pool they like to say, but they have really come together to fix this problem and it has application not only in AFRICOM but across the joint space," Frisby said.

Frisby pointed to the recent successes of maritime civil affairs, for example, in assisting clearing ports in Japan in the aftermath of the earthquake and tsunami in 2011 and in Haiti after the earthquake in 2010. "Even though the maritime portion of civil affairs is fairly new, they played a significant role in

Army Capt. Phillip Pascarelli (third from right), a civil affairs officer for the 353rd Civil Affairs Command, discusses the proposed architectural design for receiving civil domain information from ground during a tabletop experiment held in May at Maritime Civil Affairs & Security Training,



Dam Neck Annex, Virginia Beach, Va. Pascarelli, along with dozens of service members and civilians, are assisting U.S. Africa Command in developing fusion cell solutions for civil information analysis and reporting. Photo by Sgt. 1st Class Andy Yoshimura.

straightening out the ports in Haiti after the earthquake. There was no one in the Army or Marine Corps that could do that. It was strictly a Navy team. Now, for any coastal or port mission, they play an absolutely critical role even though they make up about 8 to 10 percent of the entire civil affairs community."

"Every fusion center will look a little bit different in each combatant command headquarters, for U.S. Pacific Command and U.S. European Command, for example," Henry said. "But the beauty of it is you put the basics in place (through the solutions architecture), and it [fusion concept in an architecture layout] will work in any staff and for any mission — it can work for logistics."

"You still have to do that mission analysis, but the fusion concept can provide a 60 to 70 percent starting point and then with the individual mission set and very explicit reach beach back for USAID, ambassadors, NGOs, and other partners represented in the fusion cells, you have all the information in one place and when you fuse that together it becomes the civil domain layer of the common operational picture, and many operational missions don't have that," Frisby said.

The CAPOSSO project is one of the first experiments the Joint Staff J7 has conducted since the disestablishment of JFCOM and Frisby said the staff is energized about its success and the interest it has generated in the other combatant commands.

The Joint Staff's J7 and J6 codes collaborated on the development of the CAPOSSO architecture and conducted a successful tabletop analytic review of the CAPOSSO project in May. Sponsored by the AFRICOM J5 civil affairs team, and started in November 2011, the yearlong project brought together civil affairs subject matter experts from all the services and several combatant commands to Dam Neck Annex in Virginia Beach.

CAPOSSO, originally scheduled to wrap up in December 2012, has requested an extension through July 2013 to work with SOCOM to integrate a technical solution with the joint combatant command-level requirements developed during the project. This will ensure a complete materiel and non-materiel solution for AFRICOM, and others who may want to adopt CAPOSSO solutions.

In addition to the JKO training course, the final deliverables include a detailed standard operating procedure for JCIFC activity sets, and comprehensive final reports on the project's gap analysis, solutions and execution. In addition to these deliverables, CAPOSSO will successfully transfer Special Operations Forces best practices to conventional forces, while emphasizing the role of fusion cells for integrating primarily unclassified data to inform intelligence, Frisby said. CHPS

Sharon Anderson is the CHIPS senior editor. Rebecca Coleman from Joint Staff public affairs contributed to this article.



DON ENTERPRISE ARCHITECTURE SUPPORTS IT

BUSINESS

By Susan Shuryn and Victor Ecarma

TRANSFORMATION

"As the defense budget has been significantly reduced and will likely stay flat for years to come, it is imperative that department personnel work together to find savings. By achieving savings through transformation of DON business IT systems and processes, the department can maximize funding for mission critical systems and continue to ensure the nation's security."

"MESSAGE FROM THE DON CIO," CHIPS, APRIL-JUNE 2012



of business information technology data, which provides needed insight into, and thus enables more effective management of, the financial and programmatic status of the enterprise. The Department of the Navy Enterprise Architecture (DON EA) process is essential to providing visibility of such vital information. Illustrated in Figure 1, the DON EA assessment process is cyclical and provides an authoritative repository of DON-wide programmatic data, in which strategic drivers are assessed, informed decision-making is enabled and policy development and refinement are facilitated. The intent is twofold: gauge and monitor the status of DON IT business transformation and promote organizational adoption of cost-saving initiatives.

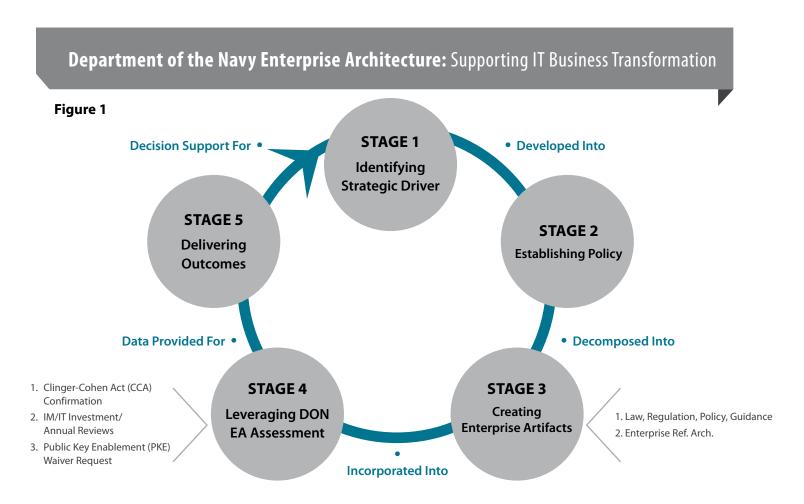
The DON EA assessment process is outcome driven versus compliance driven. For example, outcomes drive the decision-making process for DON leadership. It is an iterative process that helps implement, modify and communicate strategic drivers and provides a means to measure intended outcomes. Through the five-stage process depicted in Figure 1, the DON EA leverages authoritative and predictable "trigger" events, enables enforcement and provides a mechanism for assessing whether established policies, goals and objectives are achieving the intended result on business IT. An overall value is that the DON EA process provides an ongoing communication channel between senior leadership and stakeholders that assists in developing effective decisions, both tactical and strategic.

In the following paragraphs, the current effort to consolidate data centers is used as an example of how the DON EA assessment process works.

IDENTIFYING STRATEGIC DRIVERS DON leadership identified data center consolidation (DCC) as a strategic imperative, with focus on identifying current data centers and consolidating appropriate data centers to achieve significant efficiencies and cost savings.

ESTABLISHING POLICY After identifying the DCC strategic driver, the DON CIO established relevant policy: "Department of the Navy Data Center Consolidation Policy Guidance."The memo, of July 20, 2011, (www.doncio.navy.mil/ PolicyView.aspx?ID=2504) established a moratorium on all DON investment in increased data storage capacity without determining that: (1) existing DON data center capacity is insufficient to meet the required capacity and (2) it is not more cost effective to expand capacity in an existing DON-owned Space and Naval Warfare Systems Command (SPAWAR), Navy Marine Corps Intranet (NMCI) or Marine Corps enterprise or regional data center.

CREATING ENTERPRISE ARTIFACTS DON EA artifacts are composed of laws, regulations, policies, guidance, reference model components, and several reusable Department of Defense Architecture Framework 1.5 and 2.0 architectural views. The DON EA v3.0.000, released Sept. 19, 2011, incorporated a new DON EA artifact based on the DCC moratorium. This particular artifact requires all DoD IT Portfolio Repository (DITPR)-DON registered systems to use available data storage at established DON, SPAWAR, NMCI or U.S. Marine Corps enterprise or regional data centers or to arrange for



expanded data storage capacity in these same data centers. (Note: DON EA v3.1.000 was released April 2, 2012: www. doncio.navy.mil/PolicyView.aspx?ID=3845.)

LEVERAGING DON EA ASSESSMENT The DON EA assessment process is a mechanism to ensure DON activities, systems and programs execute existing DON policy and strategy, including the DON DCC artifact summarized previously (along with other applicable DON EA artifacts). Asserting compliance is required on an annual basis for all acquisition category (ACAT) and non-ACAT IT/national security systems (NSS) — investments for all Global Information Grid — mission areas as part of the following processes and trigger events:

- Title 40/Clinger-Cohen Act (Title 40/CCA) confirmation process, which is required prior to all IT/NSS acquisition milestone, full-rate production and full deployment decision reviews, request for proposal (RFP) releases and all contract awards.
- DON Information Management/Information Technology Investment and Annual Review process, which requires assertion of compliance prior to obligation of any development/modernization (Dev/Mod) funding for the Business Mission Area and the Enterprise Information Environment Mission Area investments or as part of an annual review for all mission areas.

As part of the DON EA assessment process, metrics are available for all DON stakeholders regarding implementation and assessment of all artifacts (including those for DCC). This results in greater awareness and stakeholder involvement in policy implementation and provides the means to offer feedback on policy. The EA assessment process also brings visibility to waiver requests for established artifacts, which require senior leadership approval. For example, the DCC artifact requires an organization to obtain a waiver to procure new data center equipment. The waiver requires a business case that: (1) provides the information needed to make an informed decision; (2) records the outcome; and (3) facilitates the production of metrics to track trends for similar events.

DELIVERING OUTCOMES By leveraging applicable trigger events, the DON CIO and other stakeholders receive authoritative data with which they can make informed business and investment management decisions. Additionally, the DON EA assessment process delivers valuable data points that can be aggregated to support an integrated DON-wide system view. An enhanced ability to track DON trends provides a source of information for strategic drivers, incorporating valuable

lessons learned and modifications that ultimately support better informed assessments and planning. Using the DCC artifact as an example, the DON EA assessment provides:

- Assurance to organizational leaders and program managers that they are complying with DCC policy as stated in the artifact and with systems assertions against the DCC artifact;
- Mapping to Program Budget Information System (PBIS)
- Associations to the responsible organization, location, networks, servers and applications;
- Waiver status of each system and program; and
- Overall DON EA assessment outcome, including the requirement for a more effective, efficient and cost-saving approach to data centers, with focus on consolidation and/or use of specific existing DON capabilities whenever possible.

As indicated above, the DON EA assessment process can show aggregate data and trends at the command, service and enterprise levels. For DCC, data aggregation provides the following information:

- Total number of systems assertions for the DCC artifact;
- Total number of systems requesting a DCC waiver, with total number granted and rejected; and
- Trends for compliance, non-compliance and waivers.

Leveraging these data points supports refinement and improvement of the DCC strategic driver identified in Stage 1, which then updates DCC artifacts and requirements throughout the DON EA assessment process. Such continued refinements and periodic analysis ensures visibility of the most current information and facilitates continual process improvement.

In summary, the DON EA assessment process provides investment decision-makers with a valid, repeatable process to gauge how well programs are implementing policies and to obtain better knowledge of the status of enterprise compliance, cost benefit analyses, and data quality through verification and validation of DITPR-DON/ DADMS (DON Application and Database Management System) inputs. As part of an enterprise data repository, the DON EA assessment process facilitates IT business transformation by enabling enhanced visibility and informed decision-making, which leads to cost-savings opportunities across the department.

Susan Shuryn is the director of the enterprise architecture team for the DON Chief Information Officer. Victor Ecarma provides enterprise architecture support to the DON CIO.

BOLD QUEST 12-1 MEASURES COALITION INTEROPERABILITY

INTEROPERABILITY ISSUES CAN BE FIXED ON THE SPOT

By Sharon Anderson

ore than 400 U.S. and coalition military personnel representing all four services, 11 partner nations and U.S. Special Operations Command, came together for a two-week exercise in June focused on combat identification for ground target engagement by coalition aircraft — especially those tools developed for aircrew and ground controllers to enable them to coordinate attacks or drop bombs on targets more quickly and effectively than they can today.

In addition to the 440 personnel deployed on-site at Camp Atterbury in Indiana, there were also 200 support personnel at other locations in the BQ12-1 distributed network, including the Air National Guard base at Fort Wayne, Indiana; Joint Staff J6 - Command, Control, Communications, Computers Assessment Division (C4AD) in Suffolk, Virginia; and Eglin Air Force Base in Florida.

Coalition partners included forces and observers from Australia, Belgium, Germany, the United Kingdom, the Netherlands, Norway, Denmark, Finland, France, Italy and Sweden.

Joint terminal attack controllers, or JTACs, the forces on the ground who

direct close air support used Bold Quest to certify the equipment they use to communicate with aircrews before deploying to Afghanistan, said Maj. Olaf Rohnberg of the German Air Force and allied lead for DaCAS, or digitally aided close-air support. Rohnberg is a longtime participant in Bold Quest.

Air Force, Navy and Indiana National Guard air assets provided close-air support for the exercise, with the JTACs from several countries directing operations on the ground. Coalition partners contributing JTACs and systems for digital exchange with aircrew during BQ12-1 scenarios included Australia, Belgium, Germany, the Netherlands and Norway.

In 2010, Norway hosted a Bold Quest exercise; Maj. Tommy Myrvoll from the Norwegian Battle Lab and project officer for Bold Quest said he is participating to ensure Norway's systems can communicate with other coalition forces and that TTPs, techniques, tactics and procedures, are aligned.

In addition, Army and Marine ground forces used unmanned aerial systems to support their intelligence, surveillance and reconnaissance operations. Special Forces operators tested techniques

and tactics for Special Operations Command.

Bold Quest is sponsored by the Joint Staff; John Miller, from the Joint Fires Division, served as the operational manager for Bold Quest. BQ has a 10-year history with an evolving focus, he explained, but it remains a coalition capabilities demonstration and assessment series. This year, BQ12-1 focused on testing digitally-aided closeair support technologies to help reduce friendly fire incidents, enhance combat effectiveness and increase situational awareness.

"The early focus for Bold Quest was combat identification technologies, but we have gone beyond sorting friends from enemies at the point of engagement to sharing information through a number of means," Miller said.

Camp Atterbury and Muscatatuck Urban Training Complex and Joint Maneuver Training Center, home of the Indiana National Guard, hosted BQ12-1 and provided ground and air units.

Assessment exercises like Bold Quest are important because they give warfighters an opportunity to test joint doctrine and TTPs with new technologies and systems.

Marine Corps Lance Cpl. Archie Knight, an unmanned aerial vehicle technician with Marine Corps Air Ground Combat Center, Twentynine Palms, Calif., aligns a RQ-7 Shadow unmanned aerial vehicle as part of launch preparations during Bold Quest 12-1 at Camp Atterbury Joint Maneuver Training Center in Indiana on June 1, 2012. U.S. Army photo by Tim Sproles.

An Indiana Air National Guard airman with the 122nd Fighter Wing at Fort Wayne Air National Guard Station, Ind., prepares a Fairchild Republic A-10 Thunderbolt II "Warthog" for flight during Bold Quest 12-1 on June 6, 2012. U.S. Army photo by Sgt. Will Hill.



"We would like to be able to exchange targeting and sensor position indication information between aircraft and JTACs, regardless of what nation or service they come from."

- NAVY LT. CMDR. MIKE HALL

No matter how detailed military standards and profiles are, they are often subject to interpretation and some issues may not be identified until they are actually tested, said Navy Lt. Cmdr. Mike Hall from the Joint Staff, Joint Deployable Analysis Team.

Military standards are written as a multipurpose set of guidelines that can be tailored to meet the needs of a broad range of users. A profile is strict guidance that further defines the military standards for a specific group of users.

Throughout the data collection phase, Bold Quest participants can recommend changes to ensure that coalition systems comply within performance standards and profiles to ensure that systems are developed to NATO standards.

Hall said Bold Quest tests the basic ability of the JTACs to exchange targeting information through radio networks regardless of service or coalition. By working with all program offices and using test tools to test interoperability set by the Joint Fires Executive Steering Committee, Hall said, "We can actually fix issues on the spot."

Resolving interoperability issues

before systems are fielded is important not only to save lives but to avoid costly mistakes.

"Even for U.S. systems, [we can] recommend changes so that future systems are developed to these standards. Evaluators for aircraft ... can check interoperability before they install software on an aircraft ... it costs a huge amount of money to fix those problems [once installed]," Hall said. "The purpose is to make sure they are interoperable with each other," he said. "We would like to be able to exchange targeting and sensor position indication information between aircraft and JTACs, regardless of what nation or service they come from."

Miller said that although you will never hear Bold Quest labeled as a training exercise, it often serves that purpose because it is a rare opportunity for U.S. and allied warfighters, technicians and analysts to work together and learn from each other. "The military go to a lot of schools, but to be able to be trained by the people who built the systems is pretty powerful," he said.

Other participants, like the Indiana Nation Guard want to build enduring relationships during the exercise, in addition to testing their systems and training, Miller said.

Because systems are increasingly complex, Miller said it is important for U.S. forces and coalition nations to meet face-to-face periodically and continuously test technologies against NATO standards and TTPs. Often coalition members use Bold Quest as their final certification before deploying their crews and equipment to Afghanistan.

Bold Quest has proven it can deliver battlefield solutions quickly, Miller said. A new combat identification server demonstrated last September during Bold Quest 11 proved so effective that it was deployed to Afghanistan within months after the exercise, he said. The system collects and maintains the locations of U.S. and coalition forces in a single server that aircrews can access as they provide close-air support.

Next year in addition to the services and Special Operations Command, U.S. Fleet Forces Command will be a significant partner, Miller said.

Ultimately, the Bold Quest series ensures that U.S. and coalition forces have the battlefield advantage.

Marine Corps Cpl. Crystal Dodson, a radio operator with Marine Corps Air Ground Combat Center Twentynine Palms, Calif., checks radio frequency on a RQ-7 Shadow unmanned aerial vehicle as part of launch preparations during Bold Quest 12-1. U.S. Army photo by Tim Sproles

Coalition forces assess digitally-aided, close-air support technologies during Bold Quest 12-1 at Fort Wayne Air National Guard Station, Ind., on June 6, 2012. U.S. Army photo by Sgt. Will Hill







Enterprise Software Agreements

The Enterprise Software Initiative (ESI) is a Department of Defense (DoD) initiative to streamline the acquisition process and provide best-priced, standards-compliant information technology (IT). The ESI is a business discipline used to coordinate multiple IT investments and leverage the buying power of the government for commercial IT products and services. By consolidating IT requirements and negotiating Enterprise Agreements with software vendors, the DoD realizes significant Total Cost of Ownership (TCO) savings in IT acquisition and maintenance. The goal is to develop and implement a process to identify, acquire, distribute and manage IT from the enterprise level.

Additionally, the ESI was incorporated into the Defense Federal Acquisition Regulation Supplement (DFARS) Section 208.74 on Oct. 25, 2002, and DoD Instruction 5000.2 on May 12, 2003.

Unless otherwise stated authorized ESI users include all DoD components, and their employees including Reserve component (Guard and Reserve), and the U.S. Coast Guard mobilized or attached to DoD; other government employees assigned to and working with DoD; nonappropriated funds instrumentalities such as NAFI employees; Intelligence Community (IC) covered organizations to include all DoD Intel System member organizations and employees, but not the CIA, nor other IC employees, unless they are assigned to and working with DoD organizations; DoD contractors authorized in accordance with the FAR; and authorized Foreign Military Sales.

For more information about the ESI or to obtain product information, visit the ESI website at www.esi.mil/.

DoD ESI Resource Library

The DoD ESI website contains a comprehensive resource library with tool kits and training guides to assist you in your acquisition process. Go to the DoD ESI website and click on the Resource Library tab.

Before you purchase software, the DoD ESI team recommends that you use the Best Value Tool Kit. The DoD ESI Best Value Toolkit provides a simple roadmap to guide DoD IT buyers through available ESI resources to ensure they obtain Best Value on behalf of the government for common commercial-off-the-shelf (COTS) software acquisition scenarios. The Best Value Toolkit may be found under the Resource Library or Customer Information tabs of the ESI website, or at the link: www.esi.mil/bestvaluetoolkit.

SaaS Tool Kit: Software as a Service (SaaS) is an emerging software delivery model in the commercial industry and government enterprises. In order to educate DoD personnel on the basics of SaaS and to determine if it's the right solution for a DoD program, the DoD ESI developed the SaaS web-based toolkit now available at the following link: www.esi.mil/saas_toolkit. The toolkit contains educational material on the SaaS delivery model, pricing, contracts, and analytical tools for DoD programs, contracts specialists and interested personnel.

Vendor Tool Kit: DoD ESI is an effective method for software publishers, hardware vendors and service providers to streamline sales to the DoD. For vendors who wish to obtain more information on how to work with the DoD ESI and the process to become a DoD ESI vendor, they should first review and familiarize themselves with the Vendors Toolkit found under the Vendor Information tab on the ESI Home page or at the following link: www.esi.mil/Uploads/Vendor Tool Kit 16 April 2012.pdf.

After reviewing the toolkit, if vendors still have questions or think that their products are a good fit for ESI, then the points of contact in the toolkit should be contacted.



Software Categories for ESI:

Asset Discovery Tools

Belarc

BelManage Asset Management – Software, maintenance and services.

Contractor: *Belarc Inc.* (W91QUZ-07-A-0005)

Authorized Users: This BPA is open for ordering by all Department of

Defense (DoD) components and authorized contractors.

Ordering Expires: 30 Dec 16

CHESS Helpdesk: (888) 232-4405 (peoeis.pdchess.helpdesk@us.army.mil)

Web Link: https://chess.army.mil/Static/SoftwareAgreement

BMC

Remedy Asset Management – Software, maintenance and services.

Contractor: BMC Software Inc. (W91QUZ-07-A-0006)

Authorized Users: This BPA is open for ordering by all DoD components and

authorized contractors.

Ordering Expires: 23 Mar 15

CHESS Helpdesk: (888) 232-4405 (peoeis.pdchess.helpdesk@us.army.mil)

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Carahsoft

Opsware Asset Management – Software, maintenance and services.

Contractor: Carahsoft Inc. (W91QUZ-07-A-0004)

Authorized Users: This BPA is open for ordering by all DoD components and

authorized contractors.

Ordering Expires: 17 Sep 12

CHESS Helpdesk: (888) 232-4405 (peoeis.pdchess.helpdesk@us.army.mil)

Web Link: https://chess.army.mil/Static/SoftwareAgreement

BDNA Asset Management - Provides asset management software, maintenance and services.

Contractor: DLT Solutions Inc. (W91QUZ-07-A-0002)

Authorized Users: This BPA has been designated as a GSA SmartBUY and is open for ordering by all Department of Defense (DoD) components, authorized contractors and all federal agencies.

Ordering Expires: 01 Apr 13

CHESS Helpdesk: (888) 232-4405 (peoeis.pdchess.helpdesk@us.army.mil)

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Database Management Tools Microsoft Products

Microsoft Database Products – See information under Office Systems on page 65.

Oracle (DEAL-O)

Oracle Products – Provides Oracle database and application software licenses, support, training and consulting services. The agreement provides complementary best-in-class middleware portfolio that spans Java Application Servers, transaction processing monitors, SOA and business process management, user interaction and Web 2.0, identity management, business intelligence, enterprise content management and vertical-specific technologies.

Contractors:

Oracle America Inc. (W91QUZ-07-A-0001); (703) 364-3110 **DLT Solutions** (W91QUZ-06-A-0002); (703) 708-8979 immixTechnology, Inc. (W91QUZ-08-A-0001);

Ordering Expires:

DLT: 01 Apr 13

immixTechnology: 02 Mar 16

Contact: CHESS Helpdesk

(888) 232-4405 (peoeis.pdchess.helpdesk@us.army.mil)

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Special Note to Navy Users: See the information provided on page 66 concerning the Navy Oracle Database Enterprise License under Department of the Navy Agreements.

Authorized Users: This has been designated as a DoD ESI and GSA SmartBUY contract and is open for ordering by all U.S. federal agencies, DoD components and authorized contractors.

Sybase (DEAL-S)

Sybase Products – Offers a full suite of software solutions designed to assist customers in achieving Information Liquidity. These solutions are focused on data management and integration; application integration; Anywhere integration; and vertical process integration, development and management.

Specific products include but are not limited to: Sybase's Enterprise Application Server; Mobile and Embedded databases; m-Business Studio; HIPAA (Health Insurance Portability and Accountability Act) and Patriot Act Compliance; PowerBuilder; and a wide range of application adaptors.

In addition, a Golden Disk for the Adaptive Server Enterprise (ASE) product is part of the agreement. The Enterprise portion of the BPA offers NT servers, NT seats, Unix servers, Unix seats, Linux servers and Linux seats. Software purchased under this BPA has a perpetual software license. The BPA also has exceptional pricing for other Sybase options. The savings to the government is 64 percent off GSA prices.

Contractor: Sybase, Inc. (DAAB15-99-A-1003); (800) 879-2273;

(301) 896-1661

Ordering Expires: 15 Jan 13

CHESS Helpdesk: (888) 232-4405 (peoeis.pdchess.helpdesk@us.army.mil)

Authorized Users: Authorized users include personnel and employees of the DoD, Reserve components (Guard and Reserve), U.S. Coast Guard when mobilized with, or attached to the DoD and nonappropriated funds instrumentalities. Also included are Intelligence Communities, including all DoD Intel Information Systems (DoDIIS) member organizations and employees. Contractors of the DoD may use this agreement to license software for performance of work on DoD projects.

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Enterprise Application Integration Enterprise Architecture Tools IBM Software Products

IBM Software Products - Provides IBM product licenses and maintenance with discounts from 1 to 19 percent off GSA pricing. On June 28, 2006, the IBM Rational Blanket Purchase Agreement (BPA) with immixTechnology was modified to include licenses and Passport Advantage maintenance for IBM products, including: IBM Rational, IBM Database 2 (DB2), IBM Informix, IBM Trivoli, IBM Websphere and Lotus software products.

Contractor: immixTechnology, Inc. (DABL01-03-A-1006);

Small Business; (703) 752-0641 or (703) 752-0646

Ordering Expires: 02 Mar 16

Web Link: https://chess.army.mil/Static/SoftwareAgreement

VMware

VMware – Provides VMware software and other products and services. This BPA has been designated as a GSA SmartBUY.

Contractor: Carahsoft Inc. (W91QUZ-09-A-0003)

Authorized Users: This BPA has been designated as a GSA SmartBUY and is open for ordering by all Department of Defense (DoD) components, authorized contractors and all federal agencies.

Ordering Expires: 27 Mar 14

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Enterprise Management CA Enterprise Management Software (C-EMS2)

Computer Associates Unicenter Enterprise Management Software

– Includes Security Management; Network Management; Event Management; Output Management; Storage Management; Performance Management; Problem Management; Software Delivery; and Asset Management. In addition to these products, there are many optional products, services and training available.

Contractor: Computer Associates International, Inc.

(W91QUZ-04-A-0002); (703) 709-4610 **Ordering Expires:** 22 Sep 12

Web Link: https://chess.army.mil/Static/SoftwareAgreement

NetIQ

NetlQ – Provides Net IQ systems management, security management and Web analytics solutions. Products include: AppManager; AppAnalyzer; Mail Marshal; Web Marshal; Vivinet voice and video products; and Vigilant Security and Management products. Discounts are 8 to 10 percent off GSA schedule pricing for products and 5 percent off GSA schedule pricing for maintenance.

Contractors:

NetIQ Corp. (W91QUZ-04-A-0003)

Northrop Grumman - authorized reseller

Federal Technology Solutions, Inc. – authorized reseller

Ordering Expires: 05 May 14

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Quest Products

Quest Products – Provides Quest software licenses, maintenance, services and training for Active Directory Products, enterprise management, ERP planning support and application and database support. Quest software products have been designated as a DoD ESI and GSA SmartBUY. Only Active Directory products have been determined to be the best value to the government and; therefore, competition is not required for Active Directory software purchases. Discount range for software is from 3 to 48 percent off GSA pricing. For maintenance, services and training, discount range is 3 to 8 percent off GSA pricing.

Contractors:

Quest Software, Inc. (W91QUZ-05-A-0023); (301) 820-4889 **DLT Solutions** (W91QUZ-06-A-0004); (703) 708-9127

Ordering Expires:

Quest: 29 Dec 15 DLT: 01 Apr 13

Web Link: https://chess.army.mil/Static/SoftwareAgreement

Enterprise Resource Planning Oracle

Oracle – See information provided under Database Management Tools on page 63.

RWD Technologies

RWD Technologies – Provides a broad range of integrated software products designed to improve the productivity and effectiveness of end users in complex operating environments. RWD's Info Pak products allow you to easily create, distribute and maintain professional training documents and online help for any computer application. RWD Info Pak products include Publisher, Administrator, Simulator and OmniHelp. Training and other services are also available.

Contractor: *RWD Technologies* (N00104-06-A-ZF37); (404) 845-3624

Ordering Expires: Effective for term of the GSA FSS Schedule **Web Link:** www.esi.mil/contentview.aspx?id=150&type=2

SAP

SAP Products – Provide software licenses, software maintenance support, information technology professional services and software training services.

Contractors:

SAP Public Services, Inc. (N00104-08-A-ZF41);

Large Business; (202) 312-3515

Advantaged Solutions, Inc. (N00104-08-A-ZF42);

Small Business; (202) 204-3083

Carahsoft Technology Corporation (N00104-08-A-ZF43);

Small Business; (703) 871-8583

Oakland Consulting Group (N00104-08-A-ZF44);

Small Business; (301) 577-4111

Ordering Expires: 14 Sep 13

Web Links:

SAP – www.esi.mil/contentview.aspx?id=154&type=2 Advantaged – www.esi.mil/contentview.aspx?id=155&type=2 Carahsoft – www.esi.mil/contentview.aspx?id=156&type=2 Oakland – www.esi.mil/contentview.aspx?id=157&type=2

Information Assurance Tools Websense (WFT)

Websense – Provides software and maintenance for Web filtering products.

Contractor: Patriot Technologies (W91QUZ-06-A-0005)

Authorized Users: This BPA is open for ordering by all DoD components and authorized contractors.

Ordering Expires: 08 Sep 12

Web Link: https://chess.army.mil/Static/SoftwareAgreement

<u>Collaboration</u> Collabnet

Collabnet – Provides CollabNet Licenses, CollabNet Support for TeamForgeTM (formerly SourceForge) and Subversion, Consulting Services and Training operating system software license subscriptions. TeamForge Enterprise integrates software configuration management, issue tracking, project management, and collaboration tools into a single Web-Browser based ALM platform that empowers distributed teams to deliver great software.

Contractor:

Carahsoft Technology Corp. (HC1047-11-A-0100)

Ordering Expires: 31 Mar 16

Web Link: www.esi.mil/contentview.aspx?id=245&type=2

Xacta

Xacta – Provides Web Certification and Accreditation (C&A) software products, consulting support and enterprise messaging management solutions through its Automated Message Handling System (AMHS) product. The software simplifies C&A and reduces its costs by guiding users through a step-by-step process to determine risk posture and assess system and network configuration compliance with applicable regulations, standards and industry best practices, in accordance with the DITSCAP, NIACAP, NIST or DCID processes. Xacta's AMHS provides automated, Web-based distribution and management of messaging across your enterprise.

Contractor: Telos Corp. (FA8771-09-A-0301); (703) 724-4555

Ordering Expires: 24 Sep 14

Web Link: https://esi.telos.com/contract/overview/default.cfm

<u>Lean Six Sigma Tools</u> iGrafx Business Process Analysis Tools

iGrafx – Provides software licenses, maintenance and media for iGrafx Process for Six Sigma 2007; iGrafx Flowcharter 2007; Enterprise Central; and Enterprise Modeler.

Contractors:

Softchoice Corporation (N00104-09-A-ZF34); (416) 588-9002 ext. 2072

Softmart, Inc. (N00104-09-A-ZF33); (610) 518-4192

SHI (N00104-09-A-ZF35); (732) 564-8333

Authorized Users: These BPAs are co-branded ESI/GSA SmartBUY BPAs and are open for ordering by all Department of Defense (DoD) components, U.S. Coast Guard, NATO, Intelligence Community, authorized DoD contractors and all federal agencies.

Ordering Expires: 31 Jan 14

Web Links:

Softchoice

www.esi.mil/contentview.aspx?id=118&type=2

Softmart

www.esi.mil/contentview.aspx?id=117&type=2

SHI

www.esi.mil/contentview.aspx?id=123&type=2

Minitab

Minitab – Provides software licenses, media, training, technical services and maintenance for products, including: Minitab Statistical Software, Quality Companion and Quality Trainer. It is the responsibility of the ordering officer to ensure compliance with all fiscal laws prior to issuing an order under a BPA, and to ensure that the vendor selected represents the best value for the requirement being ordered (see FAR 8.404).

Contractor: Minitab, Inc. (N00104-08-A-ZF30); (800) 448-3555

Authorized Users: This BPA is open for ordering by all Department of Defense (DoD) components, U.S. Coast Guard, NATO, Intelligence Community and authorized DoD contractors.

Ordering Expires: 07 May 13

Web Link: www.esi.mil/contentview.aspx?id=73&type=2

PowerSteering

PowerSteering – Provides software licenses (subscription and perpetual), media, training, technical services, maintenance, hosting and support for PowerSteering products: software as a service solutions to apply the proven discipline of project and portfolio management in IT, Lean Six Sigma, Project Management Office or any other project-intensive area and to improve strategy alignment, resource management, executive visibility and team productivity. It is the responsibility of the ordering officer to ensure compliance with all fiscal laws prior to issuing an order under a BPA, and to ensure that the vendor selected represents the best value for the requirement being ordered (see FAR 8.404).

Contractor: immix Group, Inc. (N00104-08-A-ZF31);

Small Business; (703) 663-2702

Authorized Users: All DoD components, U.S. Coast Guard, NATO, Intelli-

gence Community, and authorized DoD contractors.

Ordering Expires: 14 Aug 13

Web Link: www.esi.mil/contentview.aspx?id=145&type=2

Office Systems Adobe Digital Media Products

Adobe Digital Media Products - The Department of the Navy IT Umbrella Program and the Naval Supply Systems Command, Weapon Systems Support, Mechanicsburg, Pa., have established multiple Enterprise Agreements for Adobe software products on behalf of the DoD ESI. This agreement expires 6/30/2016 (inclusive of BPA option ordering periods). Products include licenses, upgrades and maintenance. The Adobe BPAs were awarded non-competitively against GSA schedule. It is the responsibility of the ordering officer to ensure compliance with all fiscal laws prior to issuing an order under a BPA, and to ensure that the vendor selected represents the best value for the requirement being ordered (see FAR 8.404). DOD Contractors are encouraged to use the ESI agreements when approved by their contracting officer in accordance with FAR 51. Note: Ordering under this vehicle is not limited to the products listed on the BPA Price List (Attachment A). Any Adobe Software product, that is on the vendor's GSA schedule, may be procured using this vehicle at a discount below GSA pricing, including the Acrobat Suite, InDesign and Web Premium, Fireworks, Lightroom, ColdFusion Standard, etc. Go to www.esi.mil/agreements.aspx?id=301.

Contractors:

Carahsoft Technology Inc. (N00104-12-A-ZF31); (703) 871-8577

CDW-G (N00104-12-A-ZF32); (800) 808-4239

Dell (N00104-12-A-ZF33); (224) 543-5314

Emergent, LLC (N00104-12-A-ZF34); (757) 493-3020

GovConnection, Inc. (N00104-12-A-ZF35); (800) 800-0019 x78007

Insight (N00104-12-A-ZF36); (800) 862-8758

SHI International Corp. (N00104-12-A-ZF370); (732) 868-5926 **Softchoice** (N00104-12-A-ZF38); (877) 333-7638 x323260 or x323228

Softmart (N00104-12-A-ZF39); (800) 628-9091 or (610) 518-4375

Ordering Expires: 30 Jun 16

Web Links:

Carahsoft Technology Inc. – www.esi.mil/contentview.aspx?id=301&type=2

CDW-G – www.esi.mil/contentview.aspx?id=302&type=2 Dell – www.esi.mil/contentview.aspx?id=303&type=2

Emergent, LLC – www.esi.mil/contentview.aspx?id=304&type=2

GovConnection – www.esi.mil/contentview.aspx?id=305&type=2

In sight-www.esi.mil/contentview.aspx?id=306&type=2

SHI International Corp. – www.esi.mil/contentview.aspx?id=307&type=2

Softchoice – www.esi.mil/contentview.aspx?id=308&type=2 Softmart – www.esi.mil/contentview.aspx?id=309&type=2

Adobe Server Products

Adobe Server Products – Provides software licenses (new and upgrade), maintenance, training and support for numerous Adobe server products including LiveCycle Forms; LiveCycle Reader Extensions; Acrobat Connect; Flex; ColdFusion Enterprise; Flash Media Server and other Adobe server products.

Contractor:

Carahsoft Technology Corp. (N00104-09-A-ZF31); (703) 871-8556

Small Business; (703) 871-8503

Ordering Expires: 14 Jan 14

Web Link: www.esi.mil/contentview.aspx?id=186&type=2

Microsoft Products

Microsoft Products – Provides licenses and software assurance for desktop configurations, servers and other products. In addition, any Microsoft product available on the GSA schedule can be added to the BPA.

Contractors:

CDW Government, LLC (N00104-02-A-ZE85); (888) 826-2394

Dell (N00104-02-A-ZE83); (800) 727-1100 ext. 7253702 or (512) 725-3702

GovConnection (N00104-10-A-ZF30); (301) 340-3412

GTSI (N00104-02-A-ZE79); (800) 999-GTSI ext. 2071

Hewlett-Packard (N00104-02-A-ZE80); (845) 337-6260

Insight Public Sector, Inc. (N00104-02-A-ZE82); (800) 862-8758

SHI (N00104-02-A-ZE86); (800) 527-6389 or (732) 564-8333

Softchoice (N00104-02-A-ZE81); (877) 333-7638

Softmart (N00104-02-A-ZE84); (800) 628-9091 ext. 6928

Ordering Expires: 31 Mar 13

Web Link: www.esi.mil/agreements.aspx?id=173

Red Hat/Netscape/Firefox

Through negotiations with August Schell Enterprises, DISA has established a DoD-wide enterprise site license whereby DISA can provide ongoing support and maintenance for the Red Hat Security Solution server products that are at the core of the Department of Defense's Public Key Infrastructure (PKI). The Red Hat Security Solution includes the following products: Red Hat Certificate System and dependencies; Red Hat Directory Server; Enterprise Web Server (previously Netscape Enterprise Server); and Red Hat Fortitude Server (replacing Enterprise Server).

August Schell also provides a download site that, in addition to the Red Hat products, also allows for downloading DISA-approved versions of the following browser products: Firefox Browser; Netscape Browser; Netscape Communicator; and Personal Security Manager. The Red Hat products and services provided through the download site are for exclusive use in the following licensed community: (1) All components of the U.S. Department of Defense and supported

organizations that utilize the Joint Worldwide Intelligence Communications System, and (2) All non-DoD employees (e.g., contractors, volunteers, allies) on-site at the U.S. Department of Defense and those not on-site but using equipment furnished by the U.S. Department of Defense (GFE) in support of initiatives which are funded by the U.S. Department of Defense.

Licensed software products available through the August Schell contract are for the commercial versions of the Red Hat software, not the segmented versions of the previous Netscape products that are compliant with Global Information Grid (GIG) standards. The segmented versions of the software are required for development and operation of applications associated with the GIG, the Global Command and Control System (GCCS) or the Global Combat Support System (GCSS).

If your intent is to use a Red Hat product to support development or operation of an application associated with the GIG, GCCS or GCSS, you must contact one of the websites listed below to obtain the GIG segmented version of the software. You may not use the commercial version available from the August Schell Red Hat download site.

If you are not sure which version (commercial or segmented) to use, we strongly encourage you to refer to the websites listed below for additional information to help you to make this determination before you obtain the software from the August Schell Red Hat download site (or contact the project manager).

Contractor: August Schell Enterprises (www.augustschell.com)

Download Site: http://redhat.augustschell.com

GCSS users: www.disa.mil/gcssj

Ordering Expires: Nov 12; All downloads provided at no cost.

Web Link: www.disa.mil

Red Hat Linux

Red Hat Linux – Provides operating system software license subscriptions and services to include installation and consulting support, client-directed engineering and software customization. Red Hat Enterprise Linux is the premier operating system for open source computing. It is sold by annual subscription, runs on seven system architectures and is certified by top enterprise software and hardware vendors.

Contractors:

Carahsoft Technology Corporation (HC1028-09-A-2004)

DLT Solutions, Inc. (HC1028-09-A-2003)

Ordering Expires:

Carahsoft: 09 Feb 14 DLT Solutions, Inc.: 17 Feb 14 **Web Link:** www.esi.mil

Research and Advisory BPA

Research and Advisory Services BPAs provide unlimited access to telephone inquiry support, access to research via websites and analyst support for the number of users registered. In addition, the services provide independent advice on tactical and strategic IT decisions. Advisory services provide expert advice on a broad range of technical topics and specifically focus on industry and market trends. BPA listed below.

Gartner Group (N00104-07-A-ZF30); (703) 378-5697; Awarded Dec. 1, 2006

Ordering Expires: Effective for term of GSA contract

Authorized Users: All DoD components. For the purpose of this agreement, DoD components include: the Office of the Secretary of Defense; U.S. Military Departments; the Chairman of the Joint Chiefs of Staff; Combatant Commands; the Department of Defense Office of Inspector General; Defense Agencies; DoD Field Activities; the U.S. Coast Guard; NATO; the Intelligence Community and Foreign Military Sales with a letter of authorization. This BPA is also open to DoD contractors authorized in accordance with the FAR Part 51.

Web Link: www.esi.mil/contentview.aspx?id=171&type=2

Autodesk

Autodesk – Provides software licenses for more than

two dozen AutoCAD and Autodesk products.

Contractor: DLT Solutions (N00104-12-A-ZF30)

Ordering Expires: 20 Nov 14

Web Link: www.esi.mil/contentview.aspx?id=267&type=2

Department of the Navy Agreements

Oracle (DEAL-O) Database Enterprise License for the Navy

On Oct. 1, 2004 and May 6, 2005, the Navy established the Oracle Database Enterprise License, effective through Sept. 30, 2012. The enterprise license provides Navy shore-based and afloat users, to include active duty, Reserve and civilian billets, as well as contractors who access Navy systems, the right to use Oracle databases for the purpose of supporting Navy internal operations. Navy users in joint commands or supporting joint functions should contact Dan McMullan, NAVICP Mechanicsburg contracting officer, at (717) 605-5659 or email daniel.mcmullan@navy.mil, for further review of the requirements and coverage.

This license is managed by the Space and Naval Warfare Systems Center (SPAWARSYSCEN) Pacific. The Navy Oracle Database Enterprise License provides significant benefits, including substantial cost avoidance for the department. It facilitates the goal of net-centric operations by allowing authorized users to access Oracle databases for Navy internal operations and permits sharing of authoritative data across the Navy enterprise.

Programs and activities covered by this license agreement shall not enter into separate Oracle database licenses outside this central agreement whenever Oracle is selected as the database. This prohibition includes software and software maintenance that is acquired:

a. as part of a system or system upgrade, including Application Specific Full Use (ASFU) licenses;

b. under a service contract;

c. under a contract or agreement administered by another agency, such as an interagency agreement;

d. under a Federal Supply Service (FSS) Schedule contract or blanket purchase agreement established in accordance with FAR 8.404(b)(4); or

e. by a contractor that is authorized to order from a Government supply source pursuant to FAR 51.101.

This policy has been coordinated with the Office of the Assistant Secretary of the Navy (Financial Management and Comptroller), Office of Budget.

Web Link: https://chess.army.mil/Contract/Details/200002

Microsoft Enterprise Licensing

The Department of the Navy signed an enterprise licensing agreement July 5, 2012. All procurement of Microsoft brand software licenses including software assurance (SA), SA only, and subscriptions and SA-step up (SASU) for desktop and server based products must be acquired through the Microsoft DON enterprise licensing agreement (ELA) if that product is offered by the DON ELA.

This agreement, valid through 2015, consolidates previous Microsoft enterprise licenses; and, therefore, optimizes cost savings by leveraging the full purchasing capacity of the department. Acquired licenses and SA must be compatible and interoperable with existing DON hardware and technology equipment. The maximum dollar value, including the base period and two option periods, is \$700 million.

Ordering guidance: All Navy and Marine Corps procurement actions for information technology software must go through their respective processes identified at the Program Executive Office for Enterprise Information Systems PMM-110 portal page: https://www.peoeis.portal.navy.mil/pmm110/default.aspx. Since this is a dynamic environment, other policies may be added with little notice. Information about ordering products via DON ELAs can also be found at this site.

Use of DON ELAs, where available, is mandatory by all DON organizations and programs per the joint memo "Mandatory Use of DON Enterprise Licensing Agreements," which was signed Feb. 22, 2012, by the Department of the Navy Chief Information Officer, the Assistant Secretary of the Navy for Research Development and Acquisition, and the Assistant Secretary of the Navy for Financial Management and Comptroller. Go to www.doncio.navy.mil/PolicyView. aspx?ID=3777 to read the memo

Web Link: For additional details, visit: www.doncio.navy.mil/ContentView. aspx?ID=3778.

DoD ESI

Your preferred source for IT Acquisition Across the Defense Department

Save time and money when purchasing commercial software, IT hardware and services

Who Can Order?

DoD ESI agreements can be used as ordering vehicles by all DoD organizations and authorized defense contractors, which include:

Office of the Secretary of Defense (OSD)

Military Departments

Chairman of the Joint Chiefs of Staff

Unified Combatant Commands

Inspector General of the Department of Defense (DoD IG)

Defense Agencies

DoD Field Activities

U.S. Coast Guard

Intelligence Community

NATO

Foreign Military Sales (FMS) with a Letter of Authorization Authorized Defense Contractors

Inventory of Software Licenses – DoD ESI maintains an inventory of software licenses for certain products that DoD programs can use. For the current inventory, please visit www.esi.mil.



For your convenience all contract information is consolidated under WWW.ESI.MIL

Visit the DON CIO and CHIPS websites for more enterprise acquisition information:

WWW.DONCIO.NAVY.MIL

WWW.DONCIO.NAVY.MIL/CHIPS

Military Sealift Command (MSC) fleet replenishment oiler USNS Henry J. Kaiser (T-AO 187) loads 900,000 gallons of a 50/50 blend of advanced biofuels and traditional petroleum-based fuel at Defense Fuel Support Point, Manchester, Wash. June 13. Kaiser will deliver the biofuel to the platforms participating in the Great Green Fleet demonstration, which will take place in July during the 2012 Rim of the Pacific exercise. This demonstration allows the Navy to test, evaluate, and demonstrate the cross-platform utility and functionality of advanced biofuels in an operational setting, and will achieve one of the five energy goals established by Secretary of the Navy Ray Mabus: to demonstrate a Great Green Fleet in local operations by 2012. U.S. Navy photo by Mass Communication Specialist 1st Class Brien Aho.

